FY 2019 Midterm
Economic Report of the Governor

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On December 22, 2017, President Trump signed into law the Tax Cuts and Jobs Act, the first major rewrite of the U.S. tax code since 1986. Key provisions of the law include: (1) temporary cuts to individual tax rates, with the top rate declining to 37% from 39.6%, (2) permanent cuts to the corporate tax rate from 35% down to 21%, along with repeal of the corporate alternative minimum tax, (3) pass-through businesses eligible for a 20% deduction on pass-through income – with an exclusion for filers of certain industries (health, law, and financial services) with income above a certain threshold, (4) almost a doubling of the standard deduction to $24,000 for married couples filing jointly and $12,000 for single filers, (5) elimination of the personal exemption, (6) a temporary increase in the estate tax exemption for single filers from $5.6 million to $11.2 million, and (7) most importantly for Connecticut, a temporary reduction in the mortgage interest deduction to $750,000 worth of debt, down from $1 million for married couples filing jointly, and caps on the deduction for state and local taxes (SALT) at $10,000. The SALT deduction mostly impacts high earners in high-cost states who are more likely to itemize.

The Tax Cuts and Jobs Act also ends the individual mandate provision of the Affordable Care Act. The individual mandate applies tax penalties to individuals who do not obtain health insurance. The Congressional Budget Office estimates this change will reduce the federal deficit by about $338 billion over the next decade, but lead to 13 million additional people uninsured over the coming decade and an increase in premiums by about 10% in most years of the decade.

There are varying estimates on the economic impact of the Tax Cuts and Jobs Act, with the nonpartisan Joint Committee on Taxation stating the federal deficit will increase by $1.46 trillion over the next decade, compared to Treasury Secretary Steven Mnuchin's claim to a net reduction in national debt. There is some question about the amount of economic stimulus that will be derived from tax reform given an otherwise healthy economy with low interest rates and low inflation. Since the end of the last recession, inflation has only topped 2% twice. Inflation brought about by the tax overhaul may lead the Federal Reserve Bank, which will be under new leadership in February 2018, to accelerate interest rate hikes from the currently stated three rate hikes for 2018. The stock market reached a new high in 2017, with the S&P 500 index growing about 20% and the Dow Jones Industrial Average passing the 25,000 mark. Though some of the exuberance from tax reform may already be built into the market highs, there is danger that an overheated market could lead to a correction in the near-term.

Other sweeping policy changes by President Trump include new guidelines to expand and speed up deportations of undocumented immigrants, departing from prior policy to prioritize those who committed serious offenses for deportation. The economic contribution of unauthorized workers is estimated at approximately 3% of private-sector GDP annually, or close to $5 trillion over a decade. In September 2017, President Trump similarly moved to end

the Deferred Action for Childhood Arrivals (DACA) program. According to the Cato Institute, President Trump's elimination of DACA would result in deporting approximately 750,000 people, with a loss of $60 billion to the federal government and a $280 billion reduction in economic growth over the next decade. The Center for American Progress estimates the loss from DACA recipients higher at $460.3 billion over the next decade. There are an estimated 10,000 DACA recipients in Connecticut. In January 2018, a federal judge in California temporarily blocked President Trump's changes to the DACA program.

According to the US Travel Association, "Travel is our country's number two export and supports more than 15 million Americans." Whether due to President Trump's low international approval ratings, or perhaps the strength of the dollar, the number of international tourists visiting the U.S. dropped by nearly 4% in the first six months of 2017 compared to the same period last year.

In 2017, the country suffered greatly as the result of natural disasters. Hurricane Harvey, which struck the U.S. in August 2017, is estimated to be the second most costly in U.S. history. Estimated losses for Hurricane Harvey range from $85 billion to $108 billion, behind Hurricane Katrina's $160 billion but ahead of Hurricane Sandy at $70.2 billion. Early predictions on the impact of Hurricane Maria, which hit Puerto Rico in September 2017, place losses as high as $95 billion. The loss from the October wildfires in California now top $9.4 billion and are being called the "most destructive and deadliest" in the state's history. As fires continued to burn in California in December, estimates for the entire year were placed at $180 billion. These figures, of course, do not include the economic loss from wildfires throughout the rest of the U.S. It is too early to determine the economic impact from the deep chill that hit the U.S East Coast in early 2018. But short term impacts on retail, home sales, and construction are expected.

Currently the U.S. is the only country that has rejected the Paris Agreement on Climate Change. In June 2017, President Trump promised to withdraw from the agreement, while in November 2017 Syria, the last country holding out, joined the agreement. The Paris Agreement requires all signatory countries to submit a plan to reduce greenhouse gas emissions. The U.S. could still elect to remain in the treaty and submit a carbon reduction plan until 2020, which is the first date the U.S. could officially withdraw from the Paris Agreement.

Nationally, jobs exceeded their pre-recession peak in May of 2014; the country's employment has now been expanding for over three and a half years. Real gross domestic product (GDP) growth accelerated in the second and third quarters of 2017, to 3.1% and 3.2% respectively. The advance estimate for fourth quarter 2017 is slightly lower at 2.6%, due to a downturn in private inventory investment and an increase in imports. Overall, GDP growth in 2017 of 2.3% exceeded 2016's 1.5% growth, but fell short of 2014 and 2015 at 2.6% and 2.9%, respectively.

The Connecticut Economy

Growing fixed costs in the state, primarily driven by pension, debt service, and retirement health care obligations that were ignored or deferred for generations, along with historically low-growing revenues have led to a series of recent small state budget operating deficits. Changing taxpayer behavior led by anticipated federal tax reform has also had an impact. For example, in December 2017 income tax payments grew by 155% compared to the previous December, largely due to taxpayers looking to claim state tax deductions on their federal return before they are eliminated in tax year 2018. This combination of low performing revenues and changing taxpayer behavior resulted in the FY 2018-FY 2019 income tax projections decreasing by $1.462 billion from January to April 2017, on top of budget deficit projections of $3.6 billion. Passing a budget to close these large deficits extended beyond the regular session, which is only the fourth time this happened since 1991. Connecticut's FY 2018-FY 2019 biennial budget was signed into law by the Governor on October 31, 2017, but was soon out of balance by over $200 million by November 2017 as a result of updated revenue estimates released in the November consensus forecast. Moreover, out year deficits are projected to be $1.9 billion in FY 2020 and $2.7 billion in FY 2021 by the Office of Fiscal Analysis.

Connecticut's economy is, of course, the underlying driver of revenue performance in the state. The state's Gross State Product (GSP), a measure of all economic activity in the state, ranked 47th among all states in total growth from the trough of the Great Recession to the second quarter of 2017. Connecticut's real GSP remains 11.5% below its pre-recession peak of $253.9 billion in first quarter 2008. As of December 2017, Connecticut's employment remains 1.6% below the pre-recession peak of 1,713,300 jobs in March of 2018. Preliminary nonfarm job estimates show the state gained 0.4% on an annual average basis, compared to 0.3% growth in 2016. As of the third quarter 2017, housing prices for existing median homes are 11.5% below their pre-recession peak of $318,478, and home sales are 37.4% below their pre-recession peak of 77,900 sales.

After declining for three years from 2013 through 2016, the state's total population grew in 2017 by 499 individuals. Lower birth rates and slightly higher death rates have contributed to Connecticut's recent flat or declining population trends. However, the biggest driver of recent population loss is an increase in net domestic migration from Connecticut to other states. In 2017, however, Connecticut lost a net 22,270 individuals to other states, a decrease of 23.5% from the prior year's net loss of 29,108.

In business news, Aetna, founded and headquartered in Hartford, Connecticut since 1853, announced its decision in June 2017 to move its headquarters to New York City. Aetna expected to move approximately 250 current and new executive positions to New York City, while maintaining approximately 5,000 jobs in Hartford. But in December 2017, Rhode Island based CVS Health announced a $69 billion purchase of Aetna, one of the largest transactions of the year with the potential to transform the provision of health care services in the country. In January 2018, CVS announced their intention to keep Hartford as the "corporate hub" for the

insurance business, with the CVS-Aetna corporate headquarters maintained in Rhode Island. In other news, in September 2017 Alexion Pharmaceuticals announced plans to relocate their headquarters to Boston from New Haven, Connecticut. Alexion intends to keep about 450 jobs in New Haven, and repay a $20 million loan and $6 million grant received from the state for headquartering in Connecticut. In its annual update Electric Boat reported more than 3,000 hires in 2017, bringing the company's workforce to 16,200, a 25 year high. The submarine builder has plans to hire 2,200 additional employees in 2018.

Economic Assumptions of the Governor's Budget

The U.S. economy is projected to grow 2.6% in both FY 2018 and FY 2019, before slowing to 1.8% in FY 2021. Inflation is expected to remain at 1.9% in FY 2018, declining slightly in FY 2019 to 1.6%, before reaching the mid-two percent range in the out-years. The U.S. unemployment rate is projected to stabilize around the upper three percent to low four percent range in the out-years. Growth in housing starts is expected to reach a high of 8.6% in FY 2019, but decline to 1.6% in FY 2021. U.S. new vehicle sales declined in FY 2017 by 1.1%, with additional expected declines throughout the forecast period.

The Connecticut economy shrank in FY 2017, declining by 0.9%, but is expected to turn around and grow 0.9% in FY 2018. Growth then is projected to increase to about two percent in FY 2019 and 2020, before reaching 1.8% in the out-years. Personal income grew 0.8% in FY 2017, and is projected to grow 2.5% in FY 2018 and above four percent FY's 2019 to 2021. Housing starts have been volatile in the state, falling by 19.7% in FY 2017, but are projected to grow by 19.4% in FY 2019. Connecticut's employment grew 0.3% in FY 2017. Projections call for no growth in FY 2018, followed by 0.6% growth in FY 2019. Employment is then projected to decline in the state by 0.2% in FY 2021 and FY 2022. The state's unemployment rate is projected to remain slightly elevated compared to the national rate throughout the forecast period.

TABLE A-1
U.S. AND CONNECTICUT ECONOMIC INDICATORS

	U.S. Real GDP (Billions of Dollars)		CT Real GSP (Millions of Dollars)		U.S. Housing Starts (Millions)		CT Housing Starts	
Fiscal Year	Value	Growth	Value	Growth	Value	Growth	Value	Growth
2017	16,891	1.9%	225.7	-0.9%	1.2	4.5%	4,837.3	-19.7%
2018	17,322	2.6%	227.8	0.9%	1.2	3.3%	4,923.3	1.8%
2019	17,778	2.6%	232.4	2.0%	1.3	8.6%	5,877.6	19.4%
2020	18,192	2.3%	237.2	2.1%	1.4	6.6%	6,798.7	15.7%
2021	18,525	1.8%	241.5	1.8%	1.5	1.6%	7,244.7	6.6%
2022	18,880	1.9%	245.9	1.8%	1.5	2.1%	7,493.1	3.4%

	U.S. Employment (Millions)		CT Employment (Thousands)		U.S. Unemployment Rate		CT Unemployment Rate	
Fiscal Year	Value	Growth	Value	Growth	Value	Growth	Value	Growth
2017	145.4	1.6%	1,682.7	0.3%	4.7%	-0.3	4.7%	-0.7
2018	147.5	1.4%	1,682.4	0.0%	4.1%	-0.6	4.6%	-0.2
2019	150.0	1.7%	1,692.4	0.6%	3.8%	-0.3	4.2%	-0.3
2020	151.7	1.1%	1,698.9	0.4%	3.7%	0.0	4.2%	-0.1
2021	152.2	0.4%	1,695.9	-0.2%	4.0%	0.3	4.3%	0.2
2022	152.8	0.4%	1,692.3	-0.2%	4.3%	0.3	4.4%	0.1

	Consumer Price Index		U.S. New Vehicle Sales (Millions)		CT Personal Income (Millions of Dollars)	
Fiscal Year	Value	Growth	Value	Growth	Value	Growth
2017	242.7	1.9%	17.3	-1.1%	248,991.5	0.8%
2018	247.3	1.9%	17.2	-0.7%	255,176.0	2.5%
2019	251.3	1.6%	16.9	-1.8%	265,608.7	4.1%
2020	257.5	2.5%	16.8	-0.1%	277,266.2	4.4%
2021	264.8	2.8%	16.7	-0.7%	288,618.5	4.1%
2022	271.3	2.4%	16.6	-1.0%	299,914.1	3.9%

REVENUE FORECAST

The following table shows the actual General Fund Revenue collections for fiscal 2017, and estimated revenue collections for fiscal 2018 and projected revenue collection for fiscal 2019 by major sources.

TABLE A-2
STATE OF CONNECTICUT - GENERAL FUND REVENUES
(In Millions)

Taxes	Actual Revenue 2016-17	Projected Revenue Current Rates 2017-18	Proposed Revenue Changes 2017-18	Net Projected Revenue 2017-18
Withholding - Personal Income Tax	$ 5,824.6	$ 5,953.2	$ -	$ 5,953.2
Estimates & Finals - Personal Income Tax	3,164.1	3,814.9	-	3,814.9
Personal Income Tax, Total	$ 8,988.7	$ 9,768.1	$ -	$ 9,768.1
Sales & Use Tax	4,192.2	4,150.9	-	4,150.9
Corporation Tax	1,037.6	933.3	-	933.3
Public Service Tax	271.5	266.9	-	266.9
Inheritance & Estate Tax	218.7	230.1	-	230.1
Insurance Companies Tax	222.8	230.6	-	230.6
Cigarettes Tax	381.5	394.2	-	394.2
Real Estate Conveyance Tax	210.0	203.1	-	203.1
Alcoholic Beverages Tax	63.1	62.6	-	62.6
Admissions & Dues Tax	39.5	40.6	-	40.6
Health Provider Tax	677.8	1,047.8	-	1,047.8
Miscellaneous Tax	21.5	27.7	-	27.7
Total Taxes	$ 16,324.9	$ 17,355.9	$ -	$ 17,355.9
Less Refunds of Tax	(1,158.2)	(1,091.5)	-	(1,091.5)
Less Earned Income Tax Credit	(105.6)	(115.0)	-	(115.0)
Less R&D Credit Exchange	(5.5)	(6.7)	-	(6.7)
Total - Taxes Less Refunds	$ 15,055.6	$ 16,142.7	$ -	$ 16,142.7
Other Revenue				
Transfers-Special Revenue	$ 328.7	$ 339.3	$ -	$ 339.3
Indian Gaming Payments	269.9	272.3	-	272.3
Licenses, Permits, Fees	275.4	308.3	-	308.3
Sales of Commodities	39.1	37.8	-	37.8
Rents, Fines, Escheats	151.4	157.1	-	157.1
Investment Income	2.4	8.0	-	8.0
Miscellaneous	330.4	193.3	-	193.3
Less Refunds of Payments	(44.2)	(57.5)	-	(57.5)
Total - Other Revenue	$ 1,353.1	$ 1,258.6	$ -	$ 1,258.6
Other Sources				
Federal Grants	$ 1,325.2	$ 1,567.8	$ -	1,567.8
Transfer From Tobacco Settlement	118.3	109.7	-	109.7
Transfers From/(To) Other Funds	(149.2)	65.7	-	65.7
Transfers to BRF – Volatility Cap	-	(664.9)	-	(664.9)
Total - Other Sources	$ 1,294.3	$ 1,078.3	$ -	$ 1,078.3
Total - General Fund Revenues	$ 17,703.0	$ 18,479.6	$ -	$ 18,479.6

Projected Revenue Current Rates 2018-19	Proposed Revenue Changes 2018-19	Net Projected Revenue 2018-19
$ 6,059.0	$ 16.1	$ 6,075.1
3,163.1	(600.0)	2,563.1
$ 9,222.1	$ (583.9)	$ 8,638.2
4,182.6	33.6	4,216.2
988.9	647.0	1,635.9
244.8	-	244.8
176.2	-	176.2
234.3	-	234.3
390.1	34.2	424.3
209.4	22.9	232.3
63.0	1.5	64.5
41.8	-	41.8
1,049.2	(0.9)	1,048.3
33.1	-	33.1
$ 16,835.5	$ 154.4	$ 16,989.9
(1,146.0)	49.7	(1,096.3)
(118.3)	-	(118.3)
(6.9)	-	(6.9)
$ 15,564.3	$ 204.1	$ 15,768.4
$ 346.4	$ -	$ 346.4
202.7	-	202.7
341.3	0.1	341.4
38.7	-	38.7
143.7	20.0	163.7
9.5	-	9.5
189.1	35.5	224.6
(58.8)	-	(58.8)
$ 1,212.6	$ 55.6	$ 1,268.2
$ 1,645.3	$ 3.8	$ 1,649.1
110.2	-	110.2
106.1	(29.0)	77.2
(13.1)	-	(13.1)
$ 1,848.5	$ (25.2)	$ 1,823.4
$ 18,625.4	$ 234.6	$ 18,860.0

Explanation of Changes

Personal Income Tax
Provide tax credit for new Passthrough Entity Tax and eliminate scheduled new exemptions.

Sales Tax
Repeal exemption for nonprescription drugs, accelerate car sales tax diversion to STF, and modify transfer to tourism fund.

Corporation Tax
Institute Passthrough Entity Tax, maintain corporate surcharge at 8%, eliminate $2.5 million cap on unitary filings for non-manufacturers.

Cigarette Tax
Increase tax from $4.35 per pack to $4.60 per pack. Impose tax on E-cigarettes at 75% of wholesale price. Increase tax from 50 cents to $1.50 on cigars.

Real Estate Conveyance Tax
Increase rates to 0.85% and 1.40%

Alcoholic Beverages Tax
Modify minimum bottle pricing.

Health Provider Tax
Implement recommendation of the ASC tax study.

Refunds of Taxes
Eliminate the property tax credit.

Licenses, Permits, and Fees
Newborn screening panel.

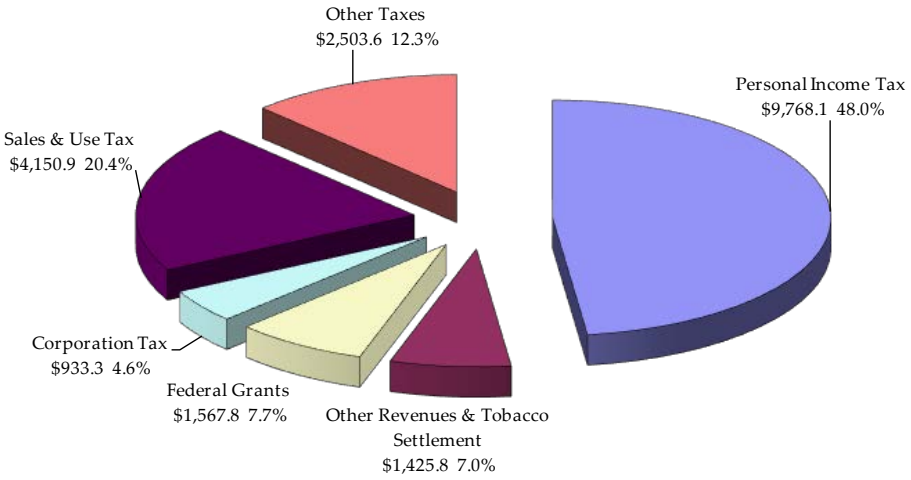
Rents, Fines, and Escheats
Expand bottle bill to wine & liquor and other beverages.

Miscellaneous Revenue
Recoveries from Higher Ed. Alternative Retirement Program.

Federal Grants
Revenue impact associated with expenditure reductions.

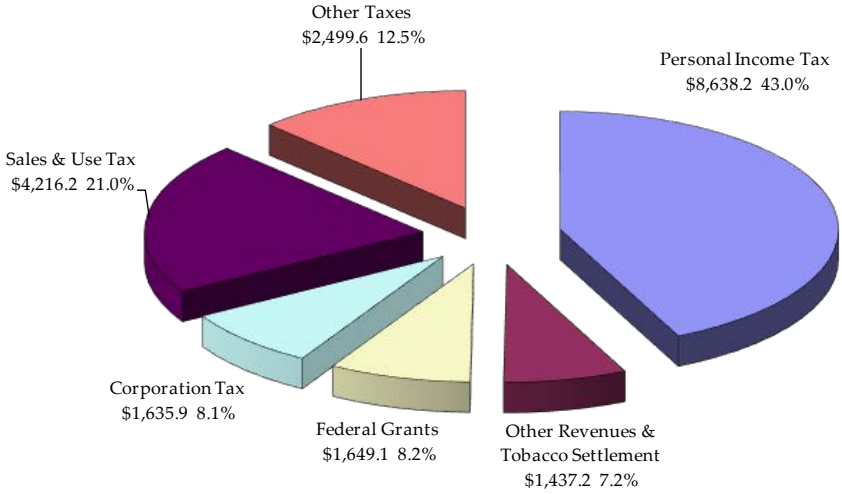
Transfers From/(To) Other Funds
Decrease transfer to the Mashantucket Pequot and Mohegan Fund. Reduce/eliminate various fund transfers to the General Fund.

GENERAL FUND
FISCAL YEAR 2018 – TOTAL $18,479.6 MILLION*



* Refunds are estimated at $1,091.5 million, R&D Credit Exchange is estimated at $6.7 million, Earned Income Tax Credit is estimated at $115.0 million, Refunds of Payments are estimated at $57.5 million, and Transfers to BRF – Volatility Cap is estimated at $664.9 million in FY 2018.

GENERAL FUND
FISCAL YEAR 2019 – TOTAL $18,860.0 MILLION*



* Refunds are estimated at $1,096.3 million, R&D Credit Exchange is estimated at $6.9 million, Earned Income Tax Credit is estimated at $118.3 million, Refunds of Payments are estimated at $58.8 million, and Transfers to BRF – Volatility Cap is estimated at $13.1 million in FY 2019.

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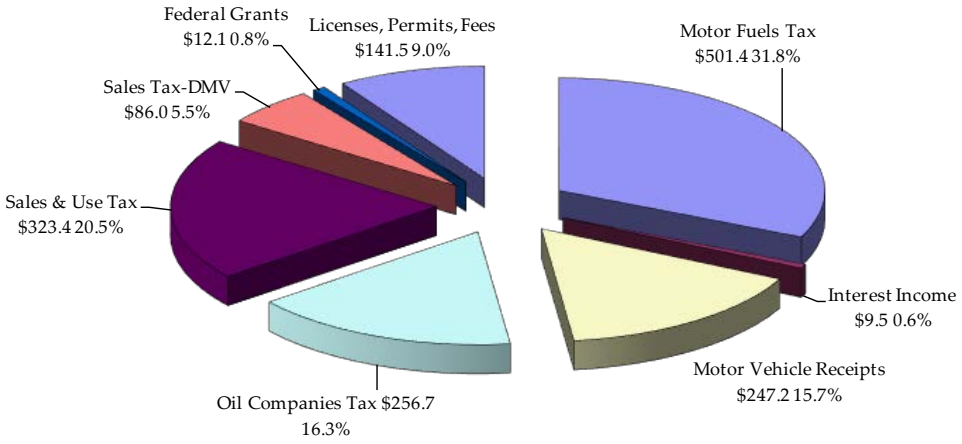
TABLE A-3
STATE OF CONNECTICUT
SPECIAL TRANSPORTATION FUND REVENUES
(In Millions)

	Actual Revenue FY 2017	Projected Revenue Current Rates FY 2018	Proposed Revenue Changes FY 2018	Net Projected Revenue FY 2018
Taxes				
Motor Fuels Tax	$ 498.5	$ 501.4	$ -	$ 501.4
Oil Companies Tax	238.4	256.7	-	256.7
Sales & Use Tax	188.4	323.4	-	323.4
Sales Tax DMV	85.0	86.0	-	86.0
Less Refunds of Taxes	(13.2)	(13.9)	-	(13.9)
TOTAL - Taxes Less Refunds	$ 996.9	$ 1,153.6	$ -	$ 1,153.6
Other Sources				
Motor Vehicle Receipts	$ 242.9	$ 247.2	$ -	$ 247.2
Licenses, Permits & Fees	144.0	141.5	-	141.5
Interest Income	9.0	9.5	-	9.5
Federal Grants	12.2	12.1	-	12.1
Transfers From (To) Other Funds	(6.5)	(5.5)	-	(5.5)
Less Refunds of Payments	(4.1)	(4.2)	-	(4.2)
TOTAL - Other Sources	$ 397.5	$ 400.6	$ -	$ 400.6
TOTAL – S.T.F.	$ 1,394.4	$ 1,554.2	$ -	$ 1,554.2



* Refunds are estimated at $18.1 million and, Transfers to Other Funds are estimated at $5.5 million in FY 2018.

	Projected Revenue Current Rates FY 2019	Proposed Revenue Changes FY 2019	Net Projected Revenue FY 2019
	$ 502.3	$ 30.0	$ 532.3
	279.8	-	279.8
	329.4	9.1	338.5
	86.8	-	86.8
	(14.6)	-	(14.6)
	$ 1,183.7	$ 39.1	$ 1,222.8
	$ 249.0	$ -	$ 249.0
	142.8	8.0	150.8
	10.4	-	10.4
	12.1	-	12.1
	(5.5)	-	(5.5)
	(4.3)	-	(4.3)
	$ 404.5	$ 8.0	$ 412.5
	$ 1,588.2	$ 47.1	$ 1,635.3

Explanation of Changes

Motor Fuels Tax

Increase gasoline tax by 2 cents in FY 2019, 1 cent in FY 2020, 2 cents in FY 2021, and 2 cents in FY 2022.

Sales and Use Tax

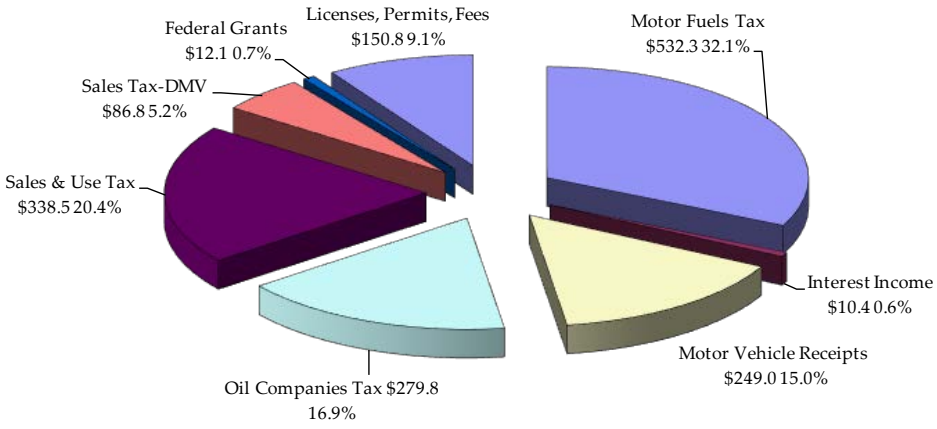
Accelerate by two years the diversion of sales tax on motor vehicles to the STF.

Licenses, Permits and Fees

Impose a $3 Tire Fee.

FISCAL YEAR 2019

TOTAL $ 1,635.3 MILLION*



* Refunds are estimated at $18.9 million and, Transfers to Other Funds are estimated at $5.5 million in FY 2019.

IMPACT OF THE GOVERNOR'S BUDGET ON THE STATE'S ECONOMY

A government budget has three purposes: it outlines necessary and desirable public services, it estimates how much these services will cost, and it defines the resources that are required to provide these services. The budget is a fundamental policy document of every level of government. As proposed, enacted and implemented, it represents a consensus regarding what government realistically can and ought to do.

The economic implications of government budgets are significant. Government expenditures and investment at the federal, state and local levels are an important dimension of the national economy, accounting for about 17% of gross domestic product. The Governor's revised budget will account for an estimated 7.5% of Connecticut's gross state product in fiscal year 2019, and state government's expenditure and revenue actions will inevitably influence the state's economy.

Expenditure Actions

General Government

Providing the Transportation Network Needed to Compete in the 21st Century

Within weeks of the adoption of a 2017-2019 biennial budget, November 2017 consensus revenue estimates reduced FY 2019 revenues by $38.1 million and further reduced out-year expectations. Oil Companies tax revenue comprised over 50% of this reduction, largely due to prolonged low prices in the price of oil.

Revised expenditure projections indicated the new revenue trends would create insurmountable problems, such as the state's ability to maintain balanced budgets, closing the state out of credit markets and forcing the state to immediately shut down ongoing infrastructure programs. This is an unacceptable out-come for the state of Connecticut and immediate action needed to be taken.

In light of the reduced consensus revenues and updated expenditure estimates, Governor Malloy ordered drastic actions to be taken in order to operate within the resources of the fund.

This scenario would have necessitated drastic changes to Department of Transportation operations, including significant fare increases and various service reductions across the state, including the near elimination of Shoreline East.

Capital investments would have to be slashed over the next five years resulting in a reduction in debt issuance by $1.1 billion and the deferral of over $4.5 billion in critical infrastructure projects, including essential bridge maintenance, roadway paving and traffic mitigation.

As part of Governor Malloy's recommended mid-term budget adjustments, new revenue proposals are proposed allowing for these severe and urgent cuts to be restored – a total addback of $42.4 million – and for project deferrals, fare increases, and service reductions to be averted. The Governor is proposing the following revenues in order to bring the transportation fund into balance:

1. *Gasoline Tax Increase* - An increase in the gasoline tax rate by seven cents to 32 cents over the next four years.
2. *Accelerate the Transfer of the Car Sales Tax* - Public Act 17-2 of the June Special Session provided, beginning in in FY 2021 all sales tax collected on the sale of new and used motor vehicles will be transferred from the General Fund to the Special Transportation. Governor Malloy is proposing to accelerate this diversion beginning with a small portion that will be transferred in FY 2019 and then 20% of the revenue would begin to be deposited in FY 2020, rising to 100% by FY 2024.
3. *Impose a Tire Fee and Eliminate the School Bus Seatbelt Account* - A $3 motor vehicle tire fee will be attached to the purchase of new tires generating an estimated $8 million per year. The Governor's budget proposal calls for the elimination of the School Bus seatbelt account, which no longer serves its original purpose, allowing the $2 million in revenue generated to fund the program to remain in the Special Transportation Fund.
4. *Statewide Tolling* – The impact of the above mentioned proposals will not be sufficient to allow for the major improvements needed in the state infrastructure. In order to accommodate the large projects that will be necessary, for example the replacement of the Hartford viaduct and the Waterbury Mixmaster, the Governor is recommending the implementation of electronic tolling. While the revenue from this program will not be realized immediately, the design and buildout need to occur now to address the needs in the near future.

Through all the aforementioned adjustments, funding will be available to continue the same level of services provided to the citizens of Connecticut. Governor Malloy's recommended budget adjustments are part of the strong structural changes needed to correct the trajectory of the Special Transportation Fund, while maintaining the fund's solvency and creditworthiness, on both the revenue and expenditure sides.

In summary, the Governor's Budget proposal will provide a long term solution to the Special Transportation Fund while keeping his promise to improve the state's transportation infrastructure.

Education and Workforce Programs

Continuing Support for Municipal Aid

Since taking office, Governor Malloy has demonstrated strong support for municipal aid, while trying to direct limited resources to the neediest communities. This budget continues that support and takes a new approach by eliminating grants to the 33 wealthiest municipalities with equalized net grand list per capita over $200,000. Alliance Districts are held harmless from this reduction. Other than this change, the Education Cost Sharing (ECS) formula that was passed by the General Assembly is largely unaltered except for two factors that affect the phase in of the grant.

Investing in Education and Enhancing its Coordination

The budget consolidates the Office of Higher Education as the Division of Post-Secondary Education within the State Department of Education. This reorganization will enhance and solidify the continuum of pre-K to post-secondary education in Connecticut, while achieving $300,000 in savings. Additionally, this budget restores $6.25 million in funding for the Community Technical College ensuring that they have adequate resources to serve students.

Shoring Up the System that Supports Connecticut's Workforce

Over the years, federal funding to support the Department of Labor's (DOL) programs has become insufficient, in part due to the underfunding of federal programs at the national level (most notably the unemployment insurance system), and partially due to rising fringe benefit costs. To ensure Connecticut's workers maintain access to quality services, the Governor's budget: 1) establishes a 0.05% administrative assessment on employers, commencing January 1, 2019, to provide sustained funding for DOL's program operations; and 2) makes a one-time $500,000 appropriation to DOL until the revenue is fully annualized.

Health and Human Services

Juan F. Compliance

$11.4 million was provided to support the Governor's desire that the Department of Children and Families (DCF) exit the Juan F. lawsuit under the conditions approved by the U.S. District Court in December 2017. The funding will support positions to improve caseload ratios and invest in community-based programming and service needs that will help the agency meet agreed-upon outcome measures.

Caseload Growth and Investments in Quality of Care

Governor Malloy added $5 million in the Department of Developmental Services (DDS) to support placements that can address the most critical needs that arise during the year, including youth stuck in emergency departments and made additional modest investments in employment/day and residential services for individuals with intellectual disabilities.

The Governor also recommended $1 million in the Department of Mental Health and Addiction Services (DMHAS) to enhance the operation of two distinct hospitals in Middletown, Connecticut Valley and the new Whiting Forensic Hospital. This funding will address systematic deficiencies and improve quality and oversight in both hospitals in order to maintain certification and related federal reimbursement at Connecticut Valley Hospital and to obtain licensure at Whiting Forensic Hospital.

Additional funding is also recommended to expand the state's Newborn Screening panel by two disorders – Pompe Disease and Mucopolysaccharidosis Type I (MPS 1) to comply with the endorsement by the U.S. Department of Health and Human Services for inclusion in the recommended universal screening panel.

Connecticut Juvenile Training School (CJTS)

The midterm budget reflects the Governor's commitment to close CJTS by July 1, 2018. The proposed budget reflects operating cost savings of $11.4 million as a result of the decision to cease admissions January 2018 in order to allow for the planful discharge of the youths in residence.

Further Conversions to Privately-Provided Services

Annualized savings of $4.2 million are estimated in DMHAS through the restructuring of some state-operated services and conversions to private operation. These conversions are not expected to decrease the total number of beds in the state's system of care. Net savings of $1.0 million are also anticipated in DDS in FY 2019 through the conversion of an additional ten state-operated residential community living arrangements (CLAs) to privately-operated CLAs and continued efforts to downsize Southbury Training School.

Reduced Reliance on the Insurance Industry

This budget reduces the reliance on insurance-assessed activities by reallocating funding for the Children's Health Initiatives account from the Insurance Fund to the General Fund; correcting a significant flaw in PA 17-4 JSS. And, in the same vein, the Governor committed to funding any expansions in the predominantly insurance-funded Office of Health Strategy with General Fund dollars.

Modernize Nursing Home Rate Setting

The Governor's midterm budget includes funding to support the development of an acuity-based rate setting system for nursing homes to modernize the reimbursement system; address inequities under the current reimbursement system; recognize resident acuity levels and direct care staffing needs; and increase access to care for higher acuity Medicaid residents. This change will align Connecticut's reimbursement methodology with many other states' Medicaid programs.

Capital Proposals

The Governor is proposing $141 million in additional general obligation (GO) bond authorizations in FY 2019. These proposed bond authorizations are in addition to those that were previously authorized by the General Assembly and become effective in FY 2019, which include $1.295 billion for various projects and programs, $200 million for the Next Generation Connecticut/ UConn 2000 program, $95 million for the CSCU 2020 program, $12.525 million for the Bioscience Collaboration Program and $15 million for the Bioscience Innovation Fund. These authorizations are offset by the cancellation of $40 million in existing GO bond authorizations.

New proposed GO bond authorizations are:

- $16 million to construct parking to support redevelopment projects in Hartford;
- $25 million more for information technology improvements to enhance the efficiency and effectiveness of state agencies; and
- $100 million to continue the renovation and renewal of the XL Center in Hartford

The Governor is not proposing adjustments to the $1.574 billion of Special Tax Obligation Bond authorizations or the $350.3 million of revenue Bonds for Clean Water Fund loans that are scheduled to become effective for FY 2019.

Revenue Proposals

The Governor's revenue proposals fall into four main categories: restoring balance to FY 2019, reducing outyear budget gaps, addressing recent federal tax changes, and investing in transportation infrastructure.

In order to restore balance to the FY 2019 budget, the Governor is proposing revenue measures totaling $234.6 million. These include extensions of revenue options already utilized in the biennial budget, including measures related to the property tax credit, cigarettes and other tobacco products, and the hotel occupancy tax supporting the tourism fund. It also makes common sense changes, such as modifications to minimum bottle pricing, which the Governor has previously supported and would benefit consumers.

The Governor is proposing changes to revenue measures in the recently passed biennial budget which would significantly reduce the outyear budget gap created by the legislation. Without any action, sun-setting provisions and newly created tax preferences that weren't programed until FY 2019 or FY 2020 will cost the state hundreds of millions of dollars. This proposal recognizes that state government should not make future promises it can't keep. The Governor recommends eliminating unaffordable new exclusions from the personal income tax and poorly targeted economic development measures such as the 7/7 brownfield tax credit program. Passage of the Governor's proposal would close the current outyear budget gap by nearly $1.2 billion in FY 2020, $1.3 billion in FY 2021, and $1.4 billion in FY 2022. As a result, the budgetary gap faced by the Governor's successor will be significantly lower than the one facing the Governor when he entered office.

In addition, the Governor is proposing several changes in response to the Federal Tax Cuts and Jobs Act of 2017. Decoupling from certain provisions in the Federal code will prevent a revenue loss to the state. In addition, a new personal income tax credit offsetting a tax on passthrough entity income will provide small businesses in the state with better tax treatment at the federal level, thereby increasing Connecticut's competitiveness. A provision allowing municipalities to create charitable organizations supporting local interests will give our cities and towns flexibility to continue to provide the services we rely on under the new federal rules.

Finally, the Governor is proposing increases in Special Transportation Fund revenue which will facilitate needed maintenance and upgrades to the state's transportation system. As vehicles have become increasingly fuel efficient, the effective motor fuels tax rate on road travel has steadily decreased since the last time the tax was raised in 1997. The Governor proposes increasing the motor fuels tax rate and institute tolling on our roads. These changes will ensure that the Special Transportation Fund is financially stable both today and in the future, allowing Connecticut to build a bridge to the economy of tomorrow.

Conclusion

Governor Malloy remains committed to a fiscally responsible state government which lives within the state's means and promotes Connecticut's quality of life. The Governor's proposed fiscal year 2019 revisions address the fiscal and economic realities facing the state. The Governor's budget is balanced, represents limited growth over prior years, and remains below the constitutional spending cap.

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E C O N O M I C R E P O R T
O F T H E G O V E R N O R

FY 2019 Midterm

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INTRODUCTION

This report fulfills the requirements of Section 4-74a of the General Statutes which stipulates that:

> "The budget document shall include the recommendations of the Governor concerning the economy and shall include an analysis of the impact of both proposed spending and proposed revenue programs on the employment, production and purchasing power of the people and industries within the state."

This report is also designed to provide a brief profile of the State of Connecticut, the economy of the state, revenues and economic assumptions that support the Governor's budget, and an analysis of the impact of both proposed spending and proposed revenue programs on the economy of the State of Connecticut.

The report focuses on eight areas including: (1) the general characteristics of the state; (2) the profile of employment in the state; (3) an in-depth analysis of important Connecticut sectors; (4) the performance indicators the United States, the New England region, and Connecticut; (5) a discussion of the most important revenue sources; (6) the economic assumptions of the Governor's budget and a numerical comparison of some of the important indicators used in the preparation of the Governor's budget; (7) the revenue forecasts of the General Fund and the Special Transportation Fund; and (8) the expected impact of the Governor's budget on the economy of the State of Connecticut.

EXECUTIVE SUMMARY

Highlights included in this report are as follows:

Population

Between 2000 and 2010, Connecticut's population grew at a rate of 4.9%, faster than the 3.8% population growth in New England but trailing behind the 9.7% of the U.S. In fiscal year 2017, Connecticut's population experienced a year over year decline of an estimated 7,300 residents. Connecticut continues to experience net outmigration, with a deficit of almost 40,000 between 2008 and 2017. Current Connecticut population estimates indicate that the relative share of Connecticut's elderly population (age 65+) exceeded the U.S., while its younger age cohorts, those under 45, trailed the nation as a whole. The proportion of residents holding a bachelor's degree in Connecticut is 13.3% higher than the nation, while the proportion of those holding a graduate or professional degree is 46.1% higher than the nation.

Housing

Connecticut's housing starts grew 22.1% in fiscal year 2016, but fell by 16.2% in fiscal year 2017. Median existing home prices increased 1.4% in Connecticut in fiscal year 2017, significantly lower than the U.S. as a whole, which saw median home prices increase 6.1%. Thirty year mortgage rates remain extremely low, increasing slightly to 3.9% in fiscal year 2017. Nationally, homeowner equity as a percentage of home values improved to 57.6% in fiscal year 2017, reaching their highest level since the housing collapse in fiscal year 2008.

Employment

In FY 2017 Connecticut gained approximately 5,000 non-farm jobs, representing a 0.3% growth in jobs. During the recent financial crisis, Connecticut lost approximately 100,000 non-farm jobs, and as of fiscal year 2017 had regained 76,600. Manufacturing remains an important sector of Connecticut's economy, representing 9.3% of all non-farm jobs in fiscal year 2017. Though the U.S. has experienced growth in manufacturing employment since FY 2011, Connecticut and New England continue to experience declining manufacturing employment. Nonmanufacturing employment gained approximately 5,000 jobs, or 0.3%, in FY 2017, trailing the U.S.'s growth of 1.7% and New England's growth of 1.6%. The largest growth in nonmanufacturing employment in Connecticut came in the Transportation and Warehousing sector, which gained 1,400 jobs or a 3.0% increase over the prior year. In FY 2017, Connecticut's unemployment rate averaged 4.7%, same as the U.S. at 4.7% and higher than New England at 3.8%.

Energy

In calendar year 2016, the United States tied with Saudia Arabia as the world's largest supplier of oil at 13.4% of the world's total each. In 2015 Connecticut consumed 3.3 thousand BTU's per 2009 chained dollar of GDP, making it one of the most energy efficient states relative to output. Overall, Connecticut is 30.7% below the nation's per capita energy consumption and ranks 5th in energy efficiency per capita. Connecticut's energy efficiency is likely due in part to the high relative price of energy in the state. In 2015 Connecticut's overall energy costs were 35% higher than the national average and its electricity prices were 70% higher than the national average.

Export Sector

Exports play a crucial role in the economy. The U.S. trade deficit in 2016 was $451.7 billion, up from $434.6 billion in 2015. Total trade exports grew 22.9% from 2007 to 2016, while trade imports have grown 9.8% over the same period. Connecticut exports totaled $14.4 billion and accounted for 5.5% of GSP in 2016. Over the past five years, Connecticut's exports have decreased by an average of 2.4% per year. Transportation equipment, nonelectrical machinery and computer and electronic equipment are Connecticut's largest exporting industries and comprise 63.2% of exports in 2016.

Defense Industry

Prime defense contracts tend to be a leading indicator of Connecticut's economic activity. In federal fiscal year (FFY) 2016, Connecticut contractors were awarded $14.1 billion in defense related prime contracts, up 16.4% from the $12.1 billion awarded in FFY 2015. However, as defense contract awards normally take several years to complete, the 3-year moving average is a better reflection of actual production activities. In FFY 2016, this average was $13.2 billion.

Retail Trade

Connecticut's retail trade in FY 2017 totaled $56.0 billion, a 1.2% increase over FY 2016. Growth in durable sales outpaced growth in non-durable sales in FY 2017, at 1.7% and 1.0% respectively. U.S. E-commerce sales continued their rapid growth, increasing an estimated 15.3% compared to a 2.8% increase in traditional retail sales. Connecticut retail trade as a percentage of disposable income decreased slightly to 26.3% in FY 2017 from 26.6% in FY 2016.

Nonfinancial Debt

Total nonfinancial debt grew 147.7% between 2000 and 2016, far outpacing GDP growth of 80.5%. Federal indebtedness grew 291.4%, state and local government debt grew 156.9%, business debts grew 104.3% and household debts grew 104.1%. Connecticut's state government debt outstanding at the end of FY 2015 was $35.4 billion, up from $33.2 billion in FY 2014 and $32.4 billion in FY 2013. Connecticut per capita state government debt was $9,862 in FY 2015, far above the fifty state average of $3,583 in FY 2015.

Gross State Product

In fiscal year 2017, Connecticut's real GSP decreased 0.9% to $225.7 billion in 2009 dollars, falling behind the U.S. and New England which saw increases of 1.8% and 0.9% respectively. Per capita real GSP in Connecticut was 24.0% higher than that of the U.S.

Personal Income

In fiscal year 2017, real personal income in Connecticut decreased 1.1%, compared to 0.6% growth in the U.S. and 0.1% growth in New England. In fiscal year 2017, Connecticut possessed the highest per capita personal income in the nation at $69,396, a growth of 0.8% over FY 2016.

Economic Forecast

Connecticut's personal income is expected to increase 4.1% in FY 2019 and 4.4% in FY 2020 to $265.6 and $277.3 billion, respectively. Connecticut is projected to add 10,000 jobs in FY 2019 and 6,500 jobs in FY 2020, or a respective 0.6% and 0.4% growth. The unemployment rate is projected to decline to 4.2% in FY 2019 and remain at 4.2% in FY 2020.

GENERAL CHARACTERISTICS OF THE STATE OF CONNECTICUT

Connecticut is located in southern New England, bordered by Long Island Sound, New York, Massachusetts and Rhode Island. The state enjoys a favorable location within the region as rail, truck, air transport and ports provide easy access to local and regional markets in the United States, Canada, and even Europe and South America. Over one-quarter of the total population of the United States and more than 50% of the Canadian population live within a 500-mile radius of Connecticut.

Connecticut is highly urbanized with a population density of 738 persons for each of its 4,842.4 square miles of land, compared with 87 persons per square mile of land for the United States (3,531,905 square miles), based on 2010 census figures. Hartford, the capital, is a center for the insurance industry and a major service center for business and commerce. Industrial activity in the state is concentrated in two regions: the Naugatuck valley, extending from Bridgeport north, and a belt extending from Hartford west to New Britain and Bristol, and south to New Haven.

Demographics

As required by the United States Constitution, a census is taken every ten years. Since the 1970 census, growth in Connecticut and New England has been slower than the nation as a whole.

TABLE 1
CENSUS POPULATION COUNTS
(In Thousands)

	United States		New England		Connecticut	
Year	Number	% Growth	Number	% Growth	Number	% Growth
1930	123,203	16.3	8,166	10.3	1,607	16.3
1940	132,165	7.2	8,437	3.3	1,709	6.3
1950	151,326	14.5	9,314	10.3	2,007	17.4
1960	179,323	18.5	10,509	12.8	2,535	26.3
1970	203,302	13.4	11,847	12.6	3,032	19.6
1980	226,542	11.4	12,349	4.2	3,108	2.5
1990	248,710	9.8	13,207	6.9	3,287	5.8
2000	281,422	13.2	13,923	5.4	3,406	3.6
2010	308,746	9.7	14,445	3.8	3,574	4.9

Source: U.S. Bureau of the Census

Between 2000 and 2010, Connecticut's population grew by 4.9%. Growth in some of the state's smaller counties, including Middlesex, New London, Tolland, and Windham counties, outpaced the state as a whole.

TABLE 2
COUNTY POPULATION IN CONNECTICUT

County	2000 Census	2000 Percent	2010 Census	2010 Percent	Percent Change
Fairfield	882,567	25.9	916,829	25.7	3.9
Hartford	857,183	25.2	894,014	25.0	4.3
Litchfield	182,193	5.3	189,927	5.3	4.2
Middlesex	155,071	4.6	165,676	4.6	6.8
New Haven	824,008	24.2	862,477	24.1	4.7
New London	259,088	7.6	274,055	7.7	5.8
Tolland	136,364	4.0	152,691	4.3	12.0
Windham	109,091	3.2	118,428	3.3	8.6
TOTAL	3,405,565	100.0	3,574,097	100.0	4.9

Source: U.S. Bureau of the Census

In FY 2017, Connecticut's population declined for the fourth consecutive year. By comparison, population grew modestly in both New England and the nation as a whole. The following table shows population for the last ten fiscal years for each of the three geographical areas.

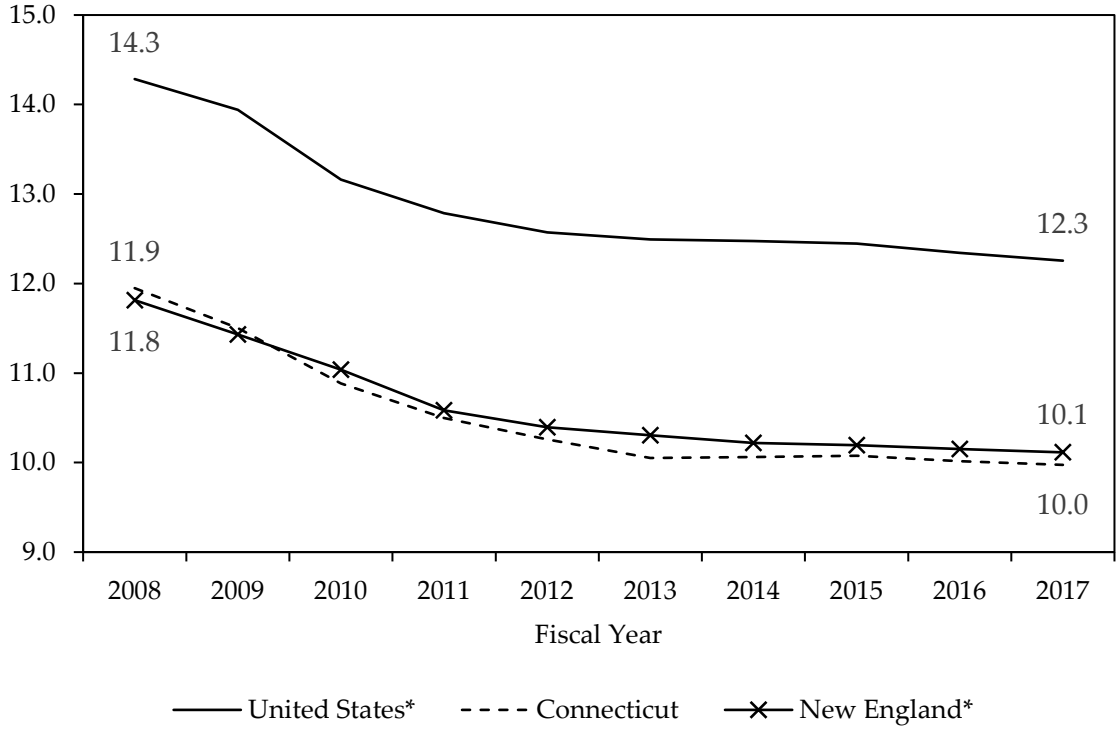
TABLE 3
POPULATION BY FISCAL YEAR
(In Thousands)

Fiscal	United States*		New England		Connecticut	
Year	Population	% Growth	Population	% Growth	Population	% Growth
2008	303,627.8	1.0	14,317.3	0.4	3,538.7	0.4
2009	306,280.4	0.9	14,379.8	0.4	3,555.7	0.5
2010	308,848.7	0.8	14,440.9	0.4	3,572.5	0.5
2011	311,258.9	0.8	14,505.8	0.4	3,586.1	0.4
2012	313,535.2	0.7	14,561.2	0.4	3,592.3	0.2
2013	315,743.6	0.7	14,614.7	0.4	3,595.2	0.1
2014	318,007.8	0.7	14,664.7	0.3	3,593.4	(0.0)
2015	320,330.1	0.7	14,699.9	0.2	3,587.4	(0.2)
2016	322,559.4	0.7	14,726.0	0.2	3,579.6	(0.2)
2017	324,776.0	0.7	14,752.8	0.2	3,572.3	(0.2)

* Includes armed forces overseas
Source: Bureau of the Census, IHS

There are two drivers of change in a population. The first is the natural change, calculated as births per 1,000 people less deaths per 1,000 people. The natural change in Connecticut was an estimated 1.4 per 1,000 people in FY 2017, down from 3.6 per 1,000 people in FY 2007. This represents a 61% decline in the natural change rate during the previous decade. Births, in particular, have been reduced in the period following the Great Recession. In Connecticut, there were 10.0 births per 1,000 people in FY 2017, down from 11.9 births per 1,000 people in FY 2008. This represents a 16.5% reduction in the birth rate in the state. The birth rate in Connecticut has been lower than both New England and the nation as a whole in every year since FY 2010. The following graph shows the rates of birth in the United States, New England, and Connecticut.

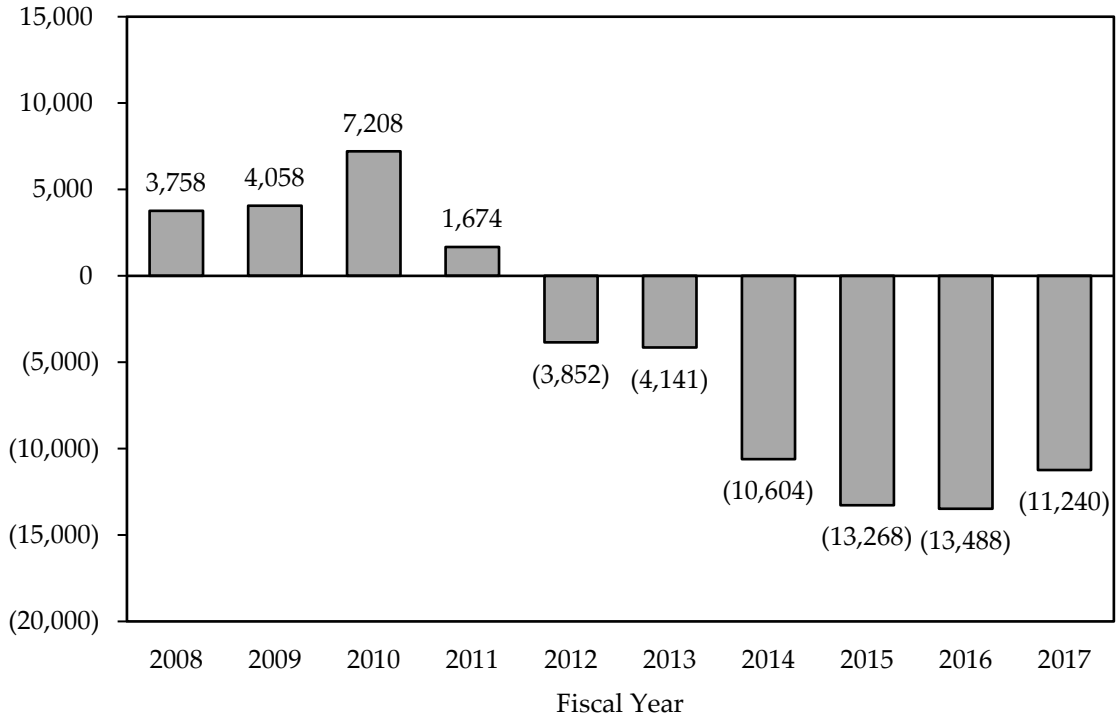
BIRTH RATE
Per 1,000 Residents



* Sum of states' totals
Source: Bureau of the Census, IHS

The second driver of population change is migration. Generally speaking, the domestic migratory pattern in the United States has been towards the South and West. This pattern has resulted in population growth in the so-called "sunbelt states." At the same time, international migration has contributed to population growth in the nation. Over the past decade, Connecticut has experienced net outmigration. In FYs 2014-2017, this outmigration was sufficient to cancel out any population growth from births, resulting in population declines in those years. The following graph shows net outmigration for the state in each of the previous ten fiscal years.

CONNECTICUT NET MIGRATION BY FISCAL YEAR



Source: Bureau of the Census, IHS

Age Cohorts

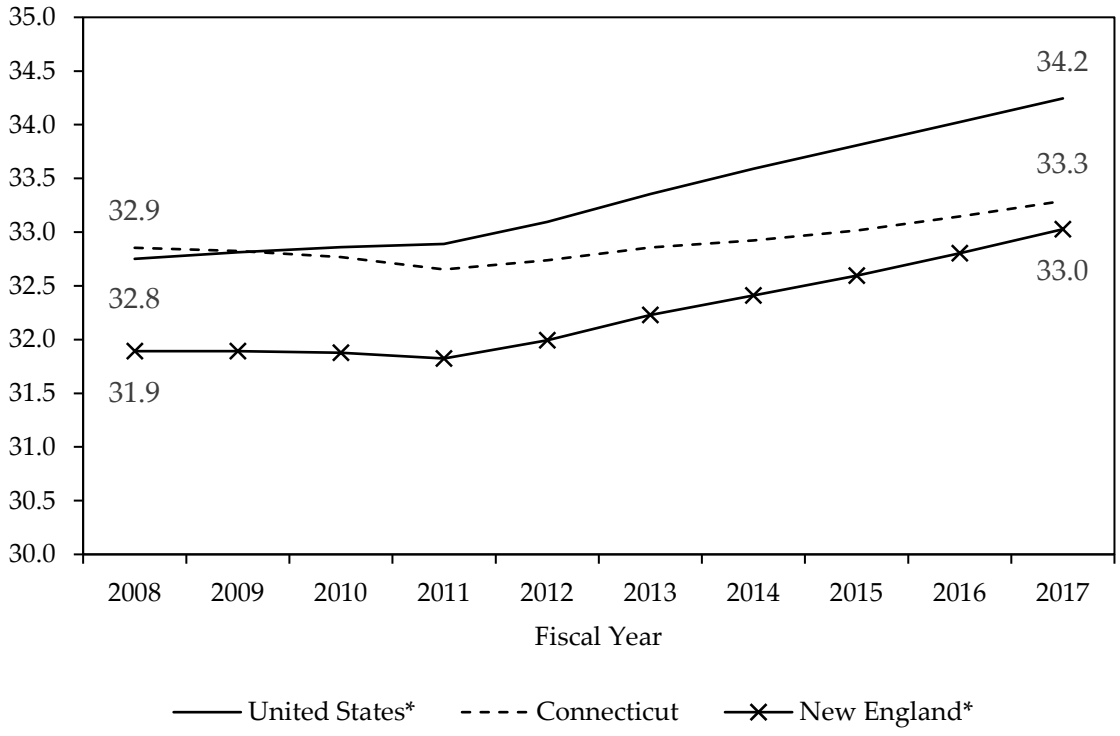
Connecticut tends to be older than the nation as a whole. In 2015, the Bureau of the Census reported the median age in Connecticut was 40.4 years, compared to a national median age of 37.6 years. An older population in the state has implications both for private economic activity and for demand for state government services. The following table summarizes population by age cohort in calendar year 2015 for Connecticut and the United States. Cohorts age 45 and older represent a larger portion of the population in Connecticut compared to the United states, while those cohorts below age 45 represent a smaller portion of the population. In Connecticut, there is a particularly large population in the age 45-54 cohort. As this cohort ages out of the workforce, there will be significant change, challenges, and opportunities in the Connecticut economy.

TABLE 4
POPULATION BY AGE COHORT
Calendar Year 2015

	Connecticut		United States	
Age Cohort	Population	% of Total	Population	% of Total
0-14 Years	627,912	17.5	61,039,860	19.2
15-24 Years	494,529	13.8	43,869,155	13.8
25-34 Years	438,471	12.2	43,397,907	13.6
35-44 Years	439,606	12.3	40,548,400	12.7
45-54 Years	545,977	15.2	43,460,466	13.6
55-64 Years	487,052	13.6	40,061,742	12.6
65+ Years	555,023	15.5	46,180,632	14.5
Total	3,588,570	100.0	318,558,162	100.0

Source: Bureau of the Census

DEPENDENCY RATIO
(Number of Dependent Population per 100 Provider Population)



* Based on sum of states' population data
Source: Bureau of the Census, IHS

The previous graph shows the dependency ratio for Connecticut, New England, and the United States over the previous ten fiscal years. The dependency rate is calculated as the number of dependent population per 100 provider population. "Dependent population" means either those age 14 or younger and those over the age of 65. "Provider population" means those aged 15 to 64. No consideration is made as to whether members of each group are currently participating in the labor force, a limit to this analysis. As the graph shows, the dependency rate in Connecticut has been below the nation each year since FY 2010. The dependency ratio in Connecticut was 33.3 persons per 100 provider population in FY 2017, compared to 34.2 in the United States and 33.0 in New England. The lower ratio in Connecticut is the result of a smaller proportion of those age 14 or younger in the state. While these individuals tend to consume many state services in the short run, they also represent the future provider population.

Educational Attainment

One of Connecticut's greatest economic strengths is a highly educated and talented workforce. This workforce gives the state a competitive edge in areas such as professional services and advanced manufacturing. The following table summarizes the highest level of educational attainment in calendar year 2016 for Connecticut and the United States, according to the Bureau of the Census. Note that the proportion of those holding a bachelor's degree in Connecticut is 13.3% higher than the nation, while the proportion of those holding a graduate or professional degree is 46.1% higher than the nation.

TABLE 5
EDUCATIONAL ATTAINMENT, PERCENT OF POPULATION 25 YEARS AND OVER
Calendar Year 2016

	Connecticut	United States	Connecticut as a % of U.S.
Less than high school	9.9%	13.0%	76.2%
High school diploma or equivalent	27.3%	27.5%	99.3%
Some college, no degree	17.3%	21.0%	82.4%
Associate's degree	7.5%	8.2%	91.5%
Bachelor's degree	21.3%	18.8%	113.3%
Graduate or professional degree	16.8%	11.5%	146.1%

*Note, columns may not add to 100.0% due to rounding
Source: Bureau of the Census

Households

Demand for goods and services depends upon the level of household income and the total number of households. The number of households is a function of household size and population; for example, for a given population, as the size of the household declines, the number of households increases, which causes higher demand for housing and automobiles as well as household goods and services.

The number of households in Connecticut in FY 2017 was an estimated 1,369,830, up slightly from FY 2016 but still below FY 2010 levels. This reflects both the slow growth of Connecticut's population over the last several years and a long term trend toward smaller household size. Family households include a householder and one or more other persons living in the same household who are related by birth, marriage or adoption. Non-family households include a householder living alone or with non-relatives.

TABLE 6
HOUSEHOLDS
(In Thousands)

Fiscal	United States*		New England*		Connecticut	
Year	Households	% Growth	Households	% Growth	Households	% Growth
2008	115,064.4	0.9	5,604.5	0.4	1,359.6	0.6
2009	115,951.5	0.8	5,639.9	0.6	1,365.3	0.4
2010	116,626.2	0.6	5,662.2	0.4	1,369.7	0.3
2011	117,108.6	0.4	5,682.2	0.4	1,366.1	(0.3)
2012	117,879.1	0.7	5,693.0	0.2	1,367.2	0.1
2013	118,446.6	0.5	5,680.0	(0.2)	1,358.3	(0.7)
2014	119,171.1	0.6	5,695.8	0.3	1,361.5	0.2
2015	120,126.7	0.8	5,702.4	0.1	1,359.9	(0.1)
2016	120,889.9	0.6	5,712.1	0.2	1,359.3	(0.0)
2017	121,762.4	0.7	5,726.3	0.2	1,369.8	0.8

*Sum of states' data
Source: Bureau of the Census, HIS

Housing

Housing plays an integral role in our nation's economy. According to analysis by the National Association of Home Builders, the housing sector's share of gross domestic product (GDP) has stayed between fourteen and sixteen percent since 2007. Housing starts, or the number of housing units on which construction has begun, reached a nadir in FY 2011. This dramatic decline in the aftermath of the Great Recession negatively impacted homebuilders and contributed to the high unemployment rate nationwide. While starts have rebounded in recent years, growth in New England and Connecticut have been slower and more uneven than the nation as a whole. Between 2011 and 2017, the compound annual growth rate in starts was 13.2% in the United States, versus 9.4% in New England and 5.4% in Connecticut. Starts decreased in both New England and Connecticut in FY 2017, by 2.0% and 19.9%, respectively. The decrease in housing starts in Connecticut in FY 2017, shown in the table below, was driven largely by a decrease in starts of multi-family units.

TABLE 7
HOUSING STARTS
(In Thousands)

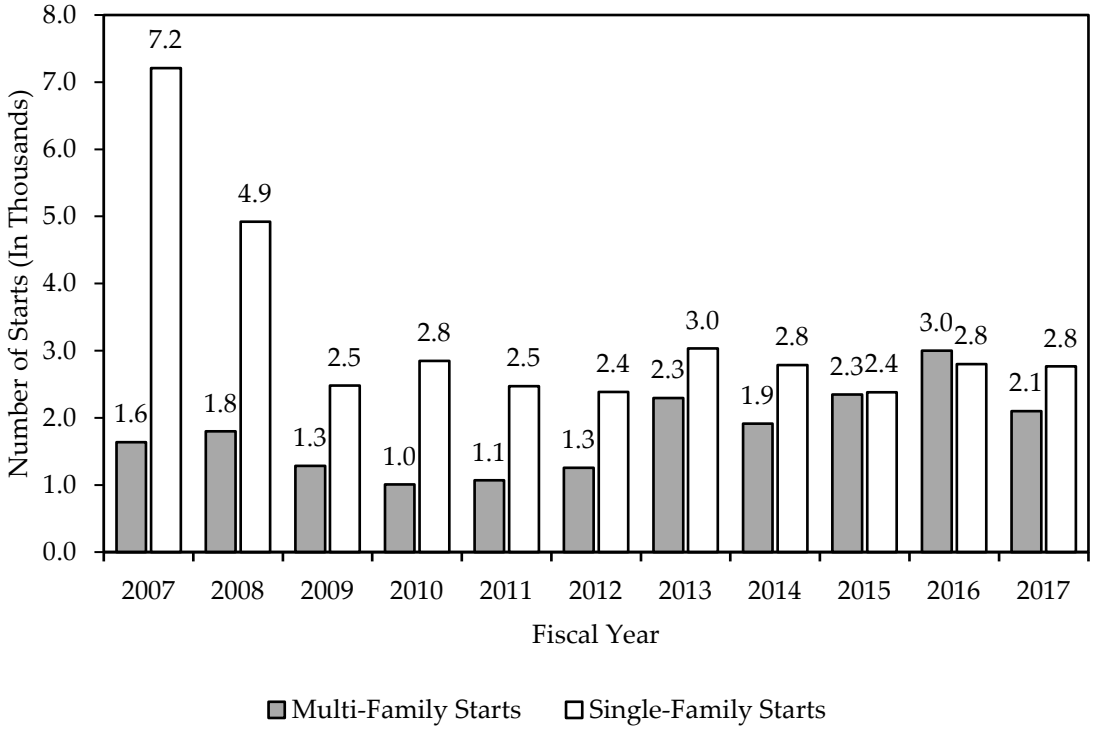
Fiscal	United States		New England		Connecticut	
Year	Number	% Growth	Number	% Growth	Number	% Growth
2007	1,546.2	(24.1)	41.6	(23.2)	8.8	(22.6)
2008	1,132.4	(26.8)	31.1	(25.3)	6.7	(24.0)
2009	646.3	(42.9)	18.6	(40.2)	3.8	(44.0)
2010	594.0	(8.1)	19.5	4.9	3.9	2.4
2011	569.7	(4.1)	18.7	(3.9)	3.5	(8.1)
2012	684.4	20.1	20.2	8.2	3.6	2.9
2013	876.7	28.1	24.4	20.4	5.4	46.5
2014	955.0	8.9	26.4	8.4	4.7	(12.0)
2015	1,055.5	10.5	26.6	0.5	4.7	0.7
2016	1,149.1	8.9	32.8	23.3	5.8	22.1
2017	1,200.6	4.5	32.1	(2.0)	4.8	(16.2)

Source: U.S. Department of Commerce, Bureau of the Census, IHS.

In Connecticut, the mix of starts has been significantly different than it was prior to the crisis in the housing market. In FY 2016, starts in multi-family housing units actually exceeded those for single-family units. Starts of single-family homes remain well below their FY 2007 level. This change may be driven by demographic changes and shifting preferences in the state. As the size of the average household has decreased and the Connecticut population has aged, demand for

smaller and more affordable housing units has increased. The following graph shows both single- and multi-family housing starts in Connecticut by fiscal year.

CONNECTICUT SINGLE-FAMILY AND MULTI-FAMILY STARTS
(In Thousands)



Source: U.S. Department of Commerce, Bureau of the Census, IHS

Household Formations

Given that housing starts were low through the recent recession, it is no surprise that household formation has also been depressed. New households may be formed when children move out of their family's home, individuals live singly after previously sharing a residence, or couples separate. Households are reduced when young people move back home with their parents or individuals pass away. The number of households is also impacted by both in- and out-migration. Connecticut has been a net out-migration state in recent years. While the number of households in the United States has grown modestly over the last decade, the number of households in Connecticut has remained relatively flat, growing by only sixteen thousand between FY 2007 and FY 2017. The following table summarizes household formation data for both the United States and Connecticut.

TABLE 8
U.S. HOUSEHOLD FORMATIONS
(In Thousands)

Fiscal Year	United States Total Households	% Change in Households from Previous Year	Connecticut Total Households	% Change in Households from Previous Year
2007	115,210	1.3%	1,352	0.1%
2008	116,062	0.7%	1,360	0.6%
2009	116,405	0.3%	1,365	0.4%
2010	116,637	0.2%	1,370	0.3%
2011	117,702	0.9%	1,366	-0.3%
2012	118,855	1.0%	1,367	0.1%
2013	120,139	1.1%	1,358	-0.7%
2014	121,104	0.8%	1,362	0.2%
2015	122,331	1.0%	1,360	-0.1%
2016	123,530	1.0%	1,364	0.3%
2017	124,120	0.5%	1,368	0.3%

Source: U.S. Bureau of the Census, IHS

Median Sales Price of Housing

Median sales price is the midpoint at which half of the sales are above and half below the price. In FY 2017, the median sales price for existing homes in the nation was 9.5% above its 2007 level. In Connecticut, the median sales price remained 14.2% below its 2007 level. Historically, the median price of an existing family home has been much higher in Connecticut than in the nation. That gap has closed considerably over the past decade. In FY 2017, the median price of a home in Connecticut was only 13.2% higher than the national average. The following table summarizes data on the median sale price for existing single-family homes.

The U.S. housing affordability index increased slightly to 168.9 in FY 2017. To interpret the housing affordability index, a value of 100 means that a family with the median income has exactly enough income to qualify for a mortgage on a median-priced home, assuming a 20% down payment. A value above 100 signifies that a family earning the median income has more than enough income to qualify for a mortgage loan on a median-priced home. The affordability index continues to remain favorable. The following table summarizes the affordability index over the previous ten fiscal years.

TABLE 9
SALES PRICE OF EXISTING HOMES IN CONNECTICUT AND THE UNITED STATES

Fiscal Year	Median Price U.S.	% Change	Median Price CT	% Change	CT as a % of U.S.	U.S. Affordability Index
2007	$220,117	(1.7)	$318,246	0.6	144.6	111.6
2008	$207,125	(5.9)	$311,608	(2.1)	150.4	127.0
2009	$180,500	(12.9)	$291,837	(6.3)	161.7	160.2
2010	$172,775	(4.3)	$279,615	(4.2)	161.8	169.2
2011	$169,033	(2.2)	$269,853	(3.5)	159.6	179.5
2012	$167,975	(0.6)	$261,404	(3.1)	155.6	194.5
2013	$185,758	10.6	$262,159	0.3	141.1	195.1
2014	$201,750	8.6	$265,489	1.3	131.6	168.0
2015	$214,908	6.5	$267,275	0.7	124.4	168.8
2016	$227,267	5.8	$269,279	0.7	118.5	166.0
2017	$241,058	6.1	$272,972	1.4	113.2	168.9
07-17 Change	$20,942	9.5	($45,274)	(14.2)		
CAGR*		0.9		(1.5)		

*Compound Annual Growth Rate
Source: IHS

Housing Finance

In FY 2017, thirty-year fixed mortgage rates averaged 3.86%, up slightly from 3.80% in FY 2016, yet still below 3.91% in FY 2015. Low interest rates and sluggish home sales have put downward pressure on mortgage rates during the housing market collapse and recent recovery.

TABLE 10
30 YEAR FIXED-RATE MORTGAGES

Fiscal Year	Average Rate	% Change	Fiscal Year	Average Rate	% Change	Fiscal Year	Average Rate	% Change
2007	6.35	2.3	2011	4.59	(8.1)	2015	3.91	(9.7)
2008	6.19	(2.5)	2012	4.01	(12.7)	2016	3.80	(3.0)
2009	5.57	(10.1)	2013	3.53	(12.1)	2017	3.86	1.6
2010	5.00	(10.3)	2014	4.33	22.9			

Source: Freddie Mac

Delinquency rates on mortgages have decreased in recent years, following a turbulent period in the aftermath of the 2007 housing bust. According to economic data from the Federal Reserve, the delinquency rate on single family residential mortgages was 4.0% in FY 2017, its lowest level since FY 2008.

Total Home Sales

Total home sales have not returned to levels experienced prior to the housing crisis, both in Connecticut and the nation. Causes may include deferred household formations, stricter lending standards, decreased speculation, and a trend toward renting instead of owning. The following table shows home sales for Connecticut, New England, and the United States by state fiscal year. Total home sales in Connecticut increased in FY 2017 by 2.3%, to their highest level since FY 2008. Total home sales grew by 2.8% in the United States and 2.3% in New England in FY 2017.

TABLE 11
Total Home Sales
(In Thousands)

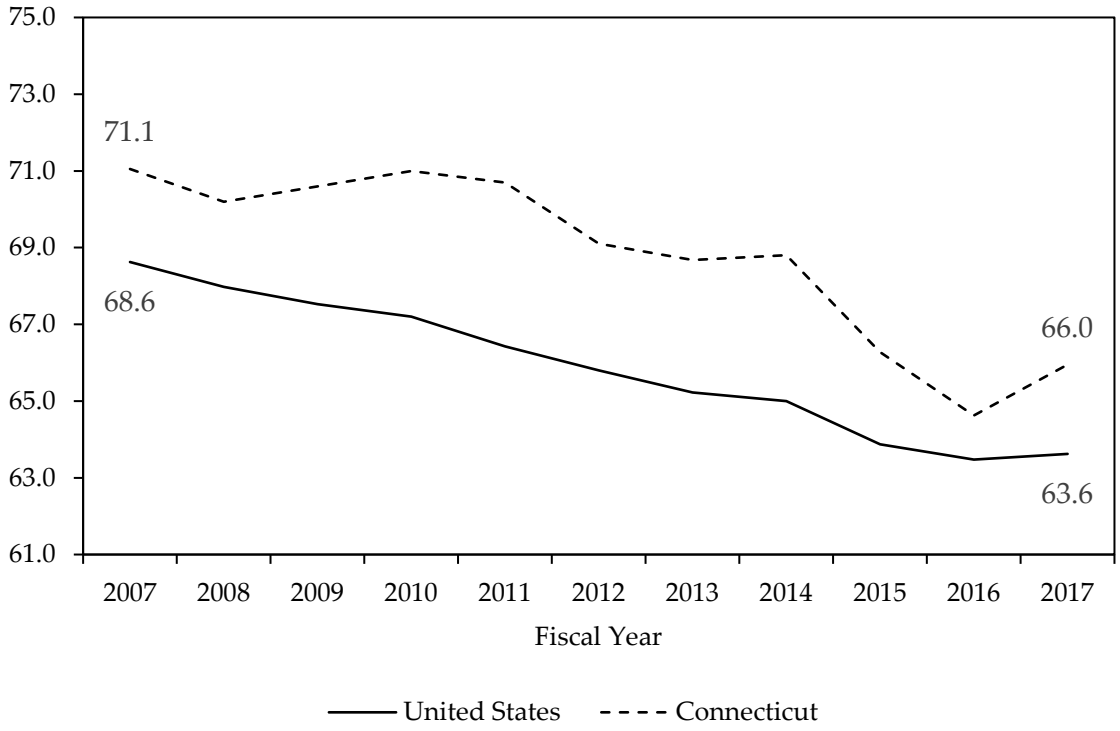
Fiscal	United States		New England*		Connecticut	
Year	Number	% Change	Number	% Change	Number	% Change
2007	5,760.2	(15.6)	265.3	(15.4)	64.2	(15.0)
2008	4,371.0	(24.1)	201.1	(24.2)	46.8	(27.1)
2009	3,941.0	(9.8)	169.8	(15.6)	35.8	(23.4)
2010	4,550.6	15.5	209.5	23.4	44.5	24.2
2011	3,920.1	(13.9)	171.4	(18.2)	35.7	(19.7)
2012	4,252.0	8.5	184.6	7.7	38.0	6.3
2013	4,707.5	10.7	207.4	12.3	43.9	15.7
2014	4,757.6	1.1	207.3	(0.0)	43.1	(2.0)
2015	4,885.4	2.7	207.4	0.0	42.1	(2.3)
2016	5,129.4	5.0	224.9	8.4	45.3	7.7
2017	5,274.0	2.8	230.0	2.3	46.4	2.3

Source: National Association of Retailers, IHS
* Sum of States' Home Sales

Homeownership and Home Equity

Homeownership experienced a long-term decline in the years following the housing crisis. This may be attributable to a number of factors, including weak economic growth, stricter lending standards, and millenials deferring their first home purchase. In FY 2017, that trend reversed itself slightly, with modest increases in homeownership rates in both Connecticut and The United States. The following graph shows homeownership rates in FY 2007 through FY 2017. Historically, Connecticut has had a higher homeownership rate than the national average. In FY 2017, the homeownership rate was 66.0% in Connecticut and 63.6% in the nation.

HOMEOWNERSHIP RATES IN THE UNITED STATES AND CONNECTICUT



Source: U.S. Census Bureau

While the rate of homeownership has declined in the last decade, the home equity rate has increased. Nationally, owners' equity in their homes has increased from a nadir of 37.7% in FY 2010 to 57.6% in FY 2017. Two factors have pushed owners' equity higher over the last decade. First, home values have nominally recovered from the housing bust. The Case-Shiller Home Price Index, which measures home values using data on sales prices of single-family homes, exceeded its previous peak in September of 2016. At the same time, the same economic and regulatory forces that have reduced homeownership have also reduced the overall indebtedness resulting

from home mortgages. The following table summarizes owners' equity data from the Federal Reserve.

TABLE 12
OWNERS' EQUITY AS A PERCENTAGE OF HOUSEHOLD REAL ESTATE
(In Billions)

Fiscal Year	Home Values*	Home Mortgages*	Home Equity
2007	$22,403.1	$10,053.1	55.1%
2008	$20,126.6	$10,649.2	47.1%
2009	$17,072.0	$10,620.6	37.8%
2010	$16,686.5	$10,397.6	37.7%
2011	$16,112.2	$9,993.5	38.0%
2012	$16,247.3	$9,737.6	40.1%
2013	$17,631.9	$9,538.5	45.9%
2014	$19,302.1	$9,458.8	51.0%
2015	$20,451.1	$9,448.7	53.8%
2016	$21,749.3	$9,585.9	55.9%
2017	$23,167.7	$9,816.1	57.6%

Source: Federal Reserve "Flow of Funds" Table B.101
* In Nominal Dollars

EMPLOYMENT PROFILE

Employment Estimates

The employment estimates for most of the tables included in this section are from the U.S. Bureau of Labor Statistics and the Connecticut Labor Department. They are developed as part of the federal-state cooperative Current Employment Statistics (CES) Program. The estimates for the state and the labor market areas are based on the responses to surveys of 5,000 Connecticut employers registered with the Unemployment Insurance program. Companies are chosen to participate based on specifications from the U.S. Bureau of Labor Statistics. As a general rule, all large establishments are included in the survey as well as a sample of smaller employers. It should be noted, however, that this method of estimating employment may result in under-counting jobs created by agricultural and private household employees, self-employed individuals and unpaid family workers who are not included in the sample. The survey only counts total business payroll employment in the economy.

In an effort to provide a broader employment picture, the following table, based on residential employment, was developed. Total residential employment is estimated based on household surveys which include individuals excluded from establishment employment figures such as self-employed and workers in the agricultural sector. By this measure, residential employment in fiscal year 2017 increased by 23,991 jobs. Likewise, the level of establishment employment based on the survey response increased by 2,042 jobs in fiscal year 2017.

The following table provides a ten fiscal year historical profile of residential and establishment employment in Connecticut.

TABLE 13
CONNECTICUT SURVEY EMPLOYMENT COMPARISONS
(In Thousands)

Fiscal Year	Residential Employment	% Growth	Establishment Employment	% Growth
2008	1,777.7	0.86	1,706.4	0.97
2009	1,757.3	(1.15)	1,664.8	(2.43)
2010	1,728.8	(1.63)	1,606.1	(3.53)
2011	1,740.9	0.70	1,618.5	0.77
2012	1,742.9	0.11	1,631.1	0.78
2013	1,718.4	(1.40)	1,643.8	0.78
2014	1,741.0	1.31	1,654.5	0.65
2015	1,779.7	2.23	1,668.5	0.85
2016	1,787.8	0.45	1,680.7	0.73
2017	1,811.8	1.34	1,682.7	0.12

Source: U.S. Bureau of Labor Statistics, Connecticut Department of Labor, IHS Economics

Nonagricultural Employment

Nonagricultural employment includes all persons employed except federal military personnel, the self-employed, proprietors, unpaid family workers, farm and household domestic workers. Nonagricultural employment is comprised of the broad manufacturing sector and the nonmanufacturing sector. These two components of nonagricultural employment are discussed in detail in the following sections.

The following table shows a ten fiscal year historical profile of nonagricultural employment in the United States, the New England region, and Connecticut.

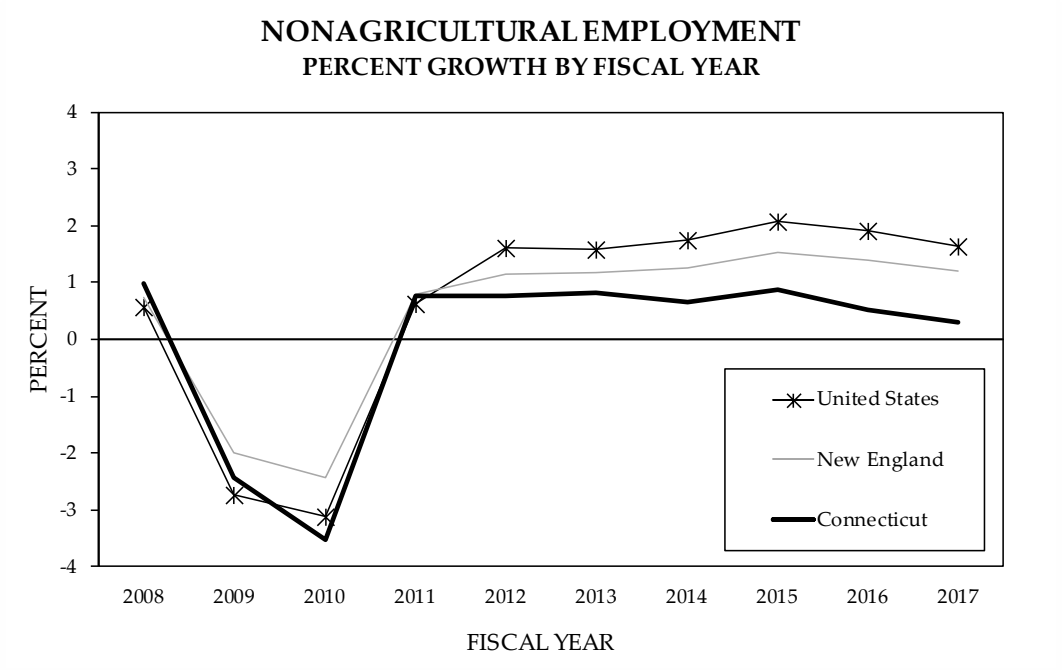
TABLE 14
NONAGRICULTURAL EMPLOYMENT
(In Thousands)

Fiscal	United States		New England		Connecticut	
Year	Number	% Growth	Number	% Growth	Number	% Growth
2008	138,151	0.58	7,092	0.72	1,706	0.97
2009	134,374	(2.73)	6,950	(2.01)	1,665	(2.43)
2010	130,173	(3.13)	6,780	(2.44)	1,606	(3.52)
2011	131,003	0.64	6,833	0.78	1,618	0.77
2012	133,094	1.60	6,911	1.14	1,631	0.76
2013	135,210	1.59	6,992	1.17	1,644	0.80
2014	137,559	1.74	7,079	1.25	1,655	0.65
2015	140,424	2.08	7,188	1.54	1,669	0.87
2016	143,092	1.90	7,288	1.39	1,678	0.52
2017	145,433	1.64	7,376	1.21	1,683	0.31

Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department, IHS Economics

In Connecticut, approximately 45% of total personal income is derived from wages earned by workers classified in the nonagricultural employment sector. Thus, increases in employment in this sector lead to increases in personal income growth and consumer demand. In addition, nonagricultural employment can be used to compare similarities and differences between economies, whether state or regional, and to observe structural changes within. These factors make nonagricultural employment figures a valuable indicator of economic activity.

Connecticut experienced positive growth in nonagricultural employment from fiscal year 2004 through fiscal year 2008. After reaching a peak in fiscal year 2008, Connecticut lost approximately 100,000 nonagricultural jobs due to the Great Recession. As of fiscal year 2017 Connecticut had regained approximately 76,575 nonagricultural jobs. The following chart provides a graphic presentation of the growth rates in nonagricultural employment for the state, New England region and nation over a ten fiscal year period.



Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department, IHS Economics

The following table shows employment growth rates for the United States and the State of Connecticut over six decades beginning in state fiscal year 1950. This table highlights the robust growth of nonagricultural employment for Connecticut prior to 1990 juxtaposed against the modest 2.2% growth between 1990 and 2000 and the negative 4.5% growth during the 2000-2010 time period which was significantly impacted by the Great Recession. U.S. growth was negative in the 2000-2010 period for the first time in five decades with a 0.5% decline. Since 2010, employment growth has increased for both the United States and Connecticut by 11.8% and 4.7% respectively.

TABLE 15
NONAGRICULTURAL EMPLOYMENT
LONG-TERM GROWTH RATES
(Not Seasonally Adjusted)

	Growth Rates		Cumulative Growth Rates	
Fiscal Year	United States	Connecticut	United States	Connecticut
1950-1960	23.4%	24.6%	23.4%	24.6%
1960-1970	31.6%	31.9%	62.4%	64.4%
1970-1980	27.3%	17.8%	106.7%	93.6%
1980-1990	20.4%	16.1%	148.8%	124.8%
1990-2000	20.0%	2.2%	198.7%	129.7%
2000-2010	(0.5%)	(4.5%)	197.1%	119.3%
2010-2017	11.8%	4.7%	232.0%	129.7%

Source: U.S. Bureau of Labor Statistics

Throughout the last two decades, while manufacturing employment in Connecticut has been steadily declining, employment growth in nonmanufacturing industries has surged. Relatively rapid growth in the nonmanufacturing sector is a trend that is evident nationwide and reflects the increased importance of the service industry. This shift in employment provides for relatively more stable economic growth in the long run through the moderation of the peaks and troughs of economic cycles. In fiscal year 2017, approximately 90% of the state's workforce was employed in nonmanufacturing jobs, up from roughly 50% in the early 1950s.

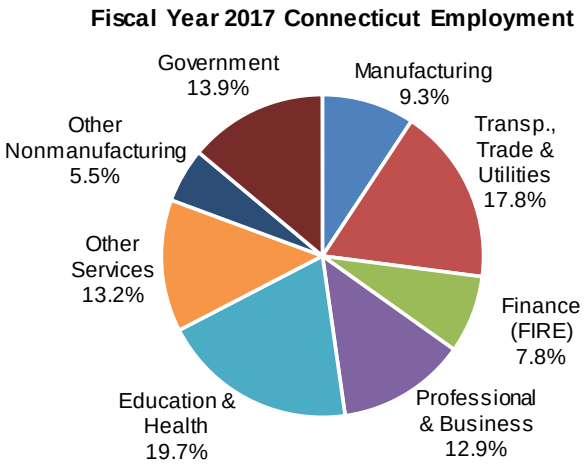
The following table depicts the decrease in the ratio of manufacturing employment to total employment in Connecticut over the last six decades.

TABLE 16
CONNECTICUT RATIO OF MANUFACTURING EMPLOYMENT TO TOTAL EMPLOYMENT
(In Thousands)

Fiscal Year	Total Employment	Manufacturing Employment	NonMfg. Employment	Mfg. Employment as a Percentage of Total Employment
1950	766.1	379.9	386.2	49.6
1955	874.7	423.2	451.6	48.4
1960	915.2	407.1	508.1	44.5
1965	1,033.0	436.2	596.8	42.2
1970	1,198.1	441.8	756.3	36.9
1975	1,224.6	389.8	834.8	31.8
1980	1,428.4	440.8	987.6	30.9
1985	1,558.2	408.0	1,150.2	26.2
1990	1,623.5	341.0	1,282.5	21.0
1995	1,556.4	251.9	1,304.6	16.2
2000	1,682.1	236.8	1,445.4	14.1
2005	1,657.1	195.4	1,460.7	11.8
2010	1,605.9	163.4	1,440.4	10.2
2017	1,682.7	156.3	1,526.4	9.3

Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

The graph on the right provides a breakdown of Connecticut employment in fiscal year 2017. As is evident, Connecticut employment is highly concentrated in nonmanufacturing employment sectors with only 9.3% of Connecticut laborers employed in the manufacturing sector. The services sector, which includes the professional and business, education and health, and leisure and hospitality segments (included in Other Services), is clearly the leading sector with 45.8% of those working employed in that classification.

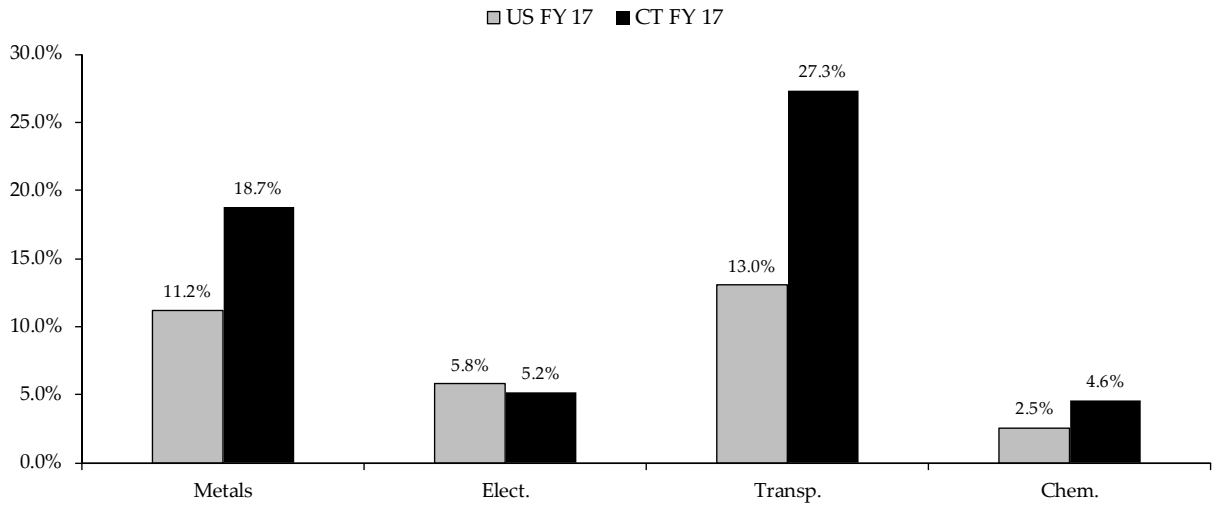


Manufacturing Employment

Even with declines in overall manufacturing employment, the ratio of manufacturing employment to total employment still defines Connecticut as one of the major manufacturing and industrial states in the country. Within this broad definition, the manufacturing sector can be further broken down into several major components.

Over the last decade the state's distribution of manufacturing employment has changed slightly. Rising defense expenditures have enhanced the transportation equipment sector as evidenced by the percentage of total state manufacturing employment in that sector at 23.6% in fiscal year 2008 and 27.3% in fiscal year 2017. Employment in the fabricated metals sector as a percent of total state manufacturing has remained stable over the past decade at approximately 17.9% in fiscal 2008 and 18.7% in fiscal 2017. The other major manufacturing sectors, electrical equipment and appliances and chemicals, make up approximately 5.2% and 4.6% of the total manufacturing sector respectively in fiscal 2017. The distribution of employment figures within the manufacturing sector highlights that Connecticut manufacturing is diversified, but has a greater reliance on the metals and transportation equipment sectors.

COMPARISON OF MANUFACTURING EMPLOYMENT IN CERTAIN SECTORS
(As A Percentage Of Total Manufacturing Employment)



Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department, IHS Economics

In fiscal year 2017, manufacturing employment in the state and New England declined by 0.15% and 0.78% respectively. In contrast, the United States continued an upward trend with a growth rate of 0.07%.

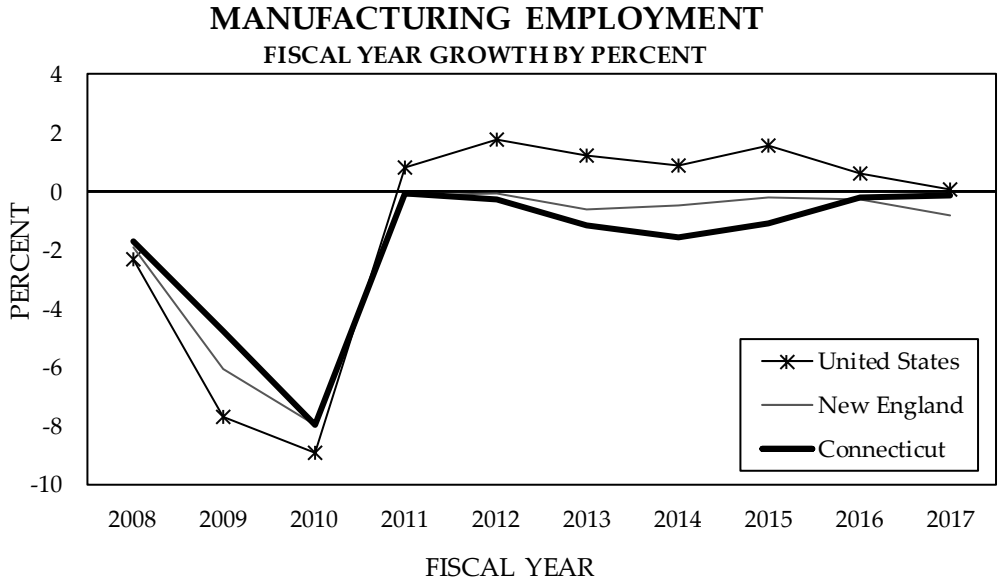
TABLE 17
MANUFACTURING EMPLOYMENT
(In Thousands)

Fiscal	United States		New England		Connecticut	
Year	Number	% Growth	Number	% Growth	Number	% Growth
2008	13,710.1	(2.28)	698.7	(1.91)	186.4	(1.70)
2009	12,655.1	(7.70)	656.6	(6.03)	177.6	(4.73)
2010	11,527.7	(8.91)	604.1	(7.99)	163.4	(7.99)
2011	11,626.1	0.85	603.5	(0.11)	163.3	(0.04)
2012	11,833.8	1.79	603.1	(0.07)	162.9	(0.27)
2013	11,978.4	1.22	599.4	(0.60)	161.0	(1.14)
2014	12,085.7	0.90	596.7	(0.46)	158.6	(1.54)
2015	12,279.6	1.60	595.4	(0.21)	156.9	(1.08)
2016	12,354.8	0.61	593.9	(0.27)	156.6	(0.19)
2017	12,363.0	0.07	589.2	(0.78)	156.3	(0.15)

Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

Historically, manufacturing employment closely parallels the business cycle, typically expanding when the economy is healthy and contracting during recessionary periods, as it did during the early 1980s. However, this relationship changed in the latter part of the 1980s, as contractions in manufacturing employment were not initially accompanied by a recession. Other factors, such as heightened foreign competition, smaller defense budgets, and improved productivity, played a significant role in affecting the overall level of manufacturing employment in Connecticut.

The erosion of the state's manufacturing base reflects the national trend away from traditional industries, both durable and nondurable. More of U.S. demand is being satisfied by foreign producers who can manufacture goods more cheaply. The upward trend of higher productivity has enabled Connecticut manufacturers to make more with fewer workers. Even with the structural change, manufacturing employment in Connecticut still accounts for 9.3% of all nonfarm payroll jobs, compared with 8.5% in the U.S. and 8.0% in New England through fiscal year 2017. The following table provides a breakdown of the state's manufacturing employment by industry and indicates percentage changes for the year and for a ten year period for each of the manufacturing sectors.



Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

Manufacturing employment showed no signs of improvement in fiscal year 2017 over fiscal year 2016. The largest growth was in printing and related support activities at 3.5%, followed by transportation equipment at 3.3%. Reductions in employment were seen in chemicals production which dropped 26.7%, and electrical equipement and appliances which dropped 3.9% over the same period. The percent change from fiscal year 2008 to 2017 demonstrates the overall decline in manufacturing employment over the last decade.

TABLE 18
CONNECTICUT MANUFACTURING EMPLOYMENT BY INDUSTRY
(In Thousands)

Industry	FY 2008	FY 2016	FY 2017	FY 2016 to FY 2017	FY 2008 to FY 2017
Transportation Equipment	43.9	41.1	42.7	3.3	(2.8)
Fabricated Metal Production	33.4	29.2	29.3	0.5	(12.2)
Electrical Equipment & Appl.	11.2	8.4	8.1	(3.9)	(27.5)
Chemicals	12.2	7.7	7.2	(26.7)	(50.1)
Printing & Related Support	7.5	5.2	5.4	3.5	(28.1)
Industrial Machinery	18.0	13.8	13.4	(3.5)	(25.6)
All Other	60.1	51.1	50.3	(2.4)	(16.6)
Total Mfg. Employment	186.4	156.6	156.3	(1.9)	(17.1)

Source: U.S. Bureau of Economic Analysis, Connecticut Labor Department, IHS Economics

Nonmanufacturing Employment

The nonmanufacturing sector is comprised of industries that provide a service. Services differ significantly from manufactured goods in that the output is generally intangible, it is produced and consumed concurrently, and it cannot be inventoried. Connecticut's nonmanufacturing sector consists of the industries listed in the following table. Over the last three decades, nonmanufacturing employment has risen in importance to the Connecticut economy, reflecting the overall national trend away from manufacturing.

Nonmanufacturing employment gained approximately 5,000 positions and increased by approximately 0.33% from fiscal year 2016 to 2017. This growth was due in large part to an increase in the services sector which grew by 1.09% (8,300 additional employed). The transportation and trade sector also experienced the largest percentage growth from fiscal year 2008 to 2017 with a 7.60% gain during that period.

The following table provides detail on Connecticut's nonmanufacturing employment by industry and indicates percentage changes for the year and over a ten year period for each of the sectors.

TABLE 19
CONNECTICUT NONMANUFACTURING EMPLOYMENT BY INDUSTRY
(In Thousands)

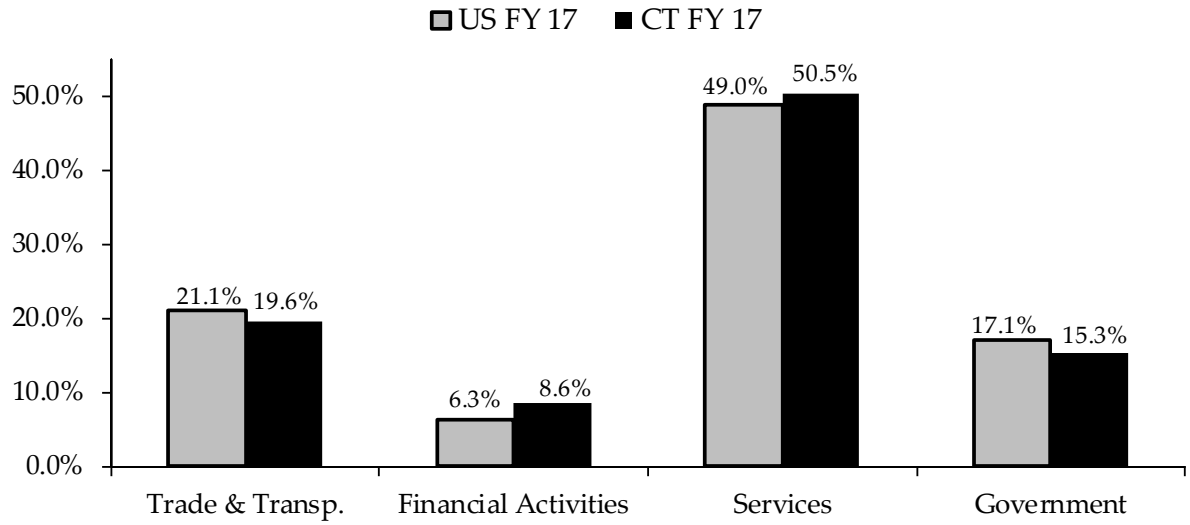
Industry	FY 2008	FY 2016	FY 2017	Percent Change FY 2016 to FY 2017	Percent Change FY 2008 to FY 2017
Construction & Mining	69.2	58.4	59.8	2.41	(13.50)
Information	38.5	33.2	31.9	(4.14)	(17.23)
Transp., Trade & Utilities	308.4	298.0	298.9	0.29	(3.10)
Transp., & Warehousing	41.8	45.4	46.8	3.03	11.88
Utilities	6.6	5.6	5.4	(2.00)	(17.56)
Wholesale	69.1	63.1	63.2	0.12	(8.59)
Retail	190.9	183.9	183.4	(0.26)	(3.89)
Finance (FIRE)	144.1	131.0	130.9	(0.05)	(9.17)
Finance & Insurance	123.2	110.6	110.6	(0.03)	(10.27)
Real Estate	20.9	20.3	20.3	(0.16)	(2.64)
Services	705.6	762.4	770.7	1.09	9.22
Professional & Business	212.2	217.1	217.3	0.11	2.44
Education & Health	292.2	327.5	331.0	1.04	13.26
Leisure & Hospitality	137.4	152.9	156.2	2.13	13.64
All Other Services	63.8	64.8	66.2	2.15	3.71
Government	254.1	238.4	234.3	(1.72)	(7.81)
Federal	19.6	17.7	18.0	1.84	(8.24)
State & Local	234.5	220.7	216.3	(2.00)	(7.78)
Total Nonmanufacturing Employment	1,519.9	1,521.4	1,526.4	0.33	0.42

Note: Totals may not agree with detail due to rounding.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, IHS Economics

The following chart provides a comparison of select nonmanufacturing sectors in Connecticut to national results.

COMPARISON OF NONMANUFACTURING EMPLOYMENT IN CERTAIN SECTORS
(As A Percentage Of Total Non-Manufacturing Employment)



Source: U.S. Bureau of Labor Statistics, IHS Economics

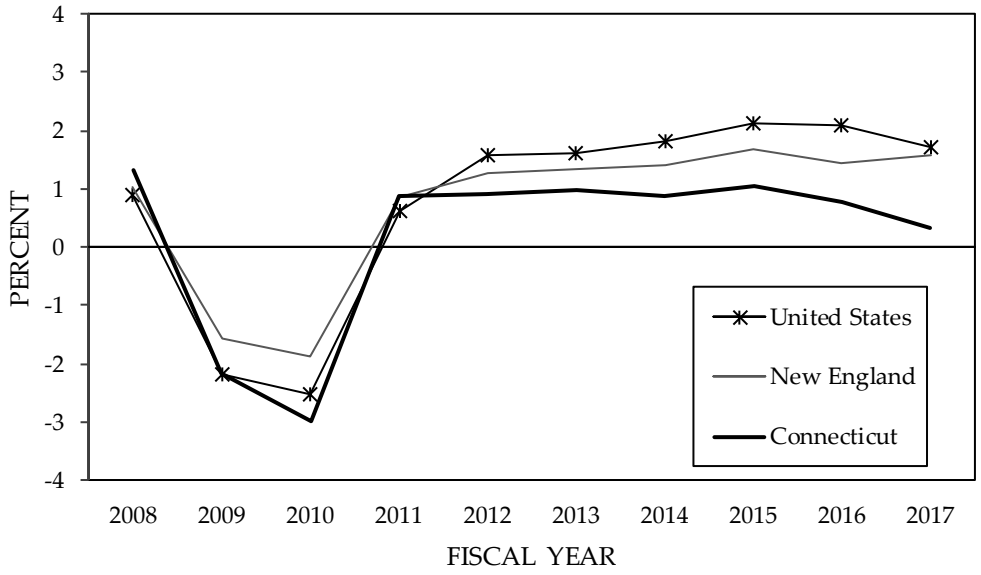
The following table and chart provide a ten fiscal year profile of nonmanufacturing employment in the United States, the New England region, and Connecticut.

TABLE 20
NONMANUFACTURING EMPLOYMENT
(In Thousands)

Fiscal	United States		New England		Connecticut	
Year	Number	% Growth	Number	% Growth	Number	% Growth
2008	124,441	0.9	6,391	1.0	1,518	1.3
2009	121,719	(2.2)	6,291	(1.6)	1,485	(2.2)
2010	118,645	(2.5)	6,174	(1.9)	1,441	(3.0)
2011	119,376	0.6	6,227	0.9	1,453	0.9
2012	121,258	1.6	6,306	1.3	1,466	0.9
2013	123,234	1.6	6,390	1.3	1,481	1.0
2014	125,478	1.8	6,480	1.4	1,494	0.9
2015	128,153	2.1	6,588	1.7	1,510	1.1
2016	130,824	2.1	6,682	1.4	1,521	0.8
2017	133,070	1.7	6,787	1.6	1,526	0.3

Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

NONMANUFACTING EMPLOYMENT
FISCAL YEAR GROWTH BY PERCENT



Source: U.S. Bureau of Labor Statistics, IHS Economics

Average annual salaries for Connecticut's nonmanufacturing industries are listed in the following table. The figures were derived by dividing total wage and salary disbursements by employment. Percent changes over the previous year and over the decade are also provided.

TABLE 21
AVERAGE CONNECTICUT NONMANUFACTURING ANNUAL SALARIES

				Percent Change	
	FY	FY	FY	FY 2016 to	FY 2008 to
Industry	2008	2016	2017	FY 2017	FY 2017
Construction	$58,522	$68,627	$66,764	(2.7)	14.1
Information	68,273	101,273	101,761	0.5	49.0
Transp., Trade & Utilities	45,704	50,254	49,721	(1.1)	8.8
Wholesale Trade	80,214	93,652	92,425	(1.3)	15.2
Retail Trade	30,604	33,693	33,441	(0.7)	9.3
Finance, Ins. & Real Estate	130,906	152,273	148,386	(2.6)	13.4
Professional & Business Services	72,394	87,163	86,925	(0.3)	20.1
Education & Health Services	45,577	53,078	52,866	(0.4)	16.0
Leisure & Hospitality Services	21,615	25,571	25,720	0.6	19.0
Government	52,465	61,043	61,084	0.1	16.4
Federal	88,393	105,016	104,856	(0.2)	18.6
State and Local	51,773	59,983	59,993	0.0	15.9

Source: U.S. Bureau of Economic Analysis, IHS Economics

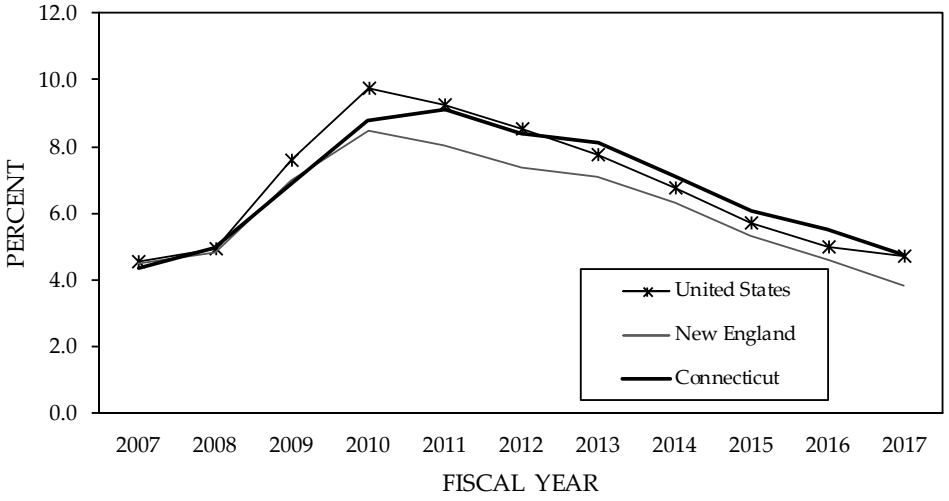
Unemployment Rate

The unemployment rate is the proportion of persons in the civilian labor force who do not have jobs but are actively looking for work. The rate is based upon a monthly survey in which household members are asked a series of questions, one of which is whether a jobless person has looked for work at some time during the preceding four weeks. Those looking for work are considered in the labor force but unemployed. The following table shows the unemployment rate for the U.S., the New England region, and Connecticut over a ten year period. Unemployment rates have fallen considerable since the end of the recession, but remain elevated by historical standards. Connecticut's unemployment rate for FY 2017 was 4.7% compared to a national average of 4.7%.

TABLE 22
UNEMPLOYMENT RATES (%)

Fiscal Year	United States	New England	Connecticut
2008	5.0	4.8	4.9
2009	7.6	7.0	6.9
2010	9.8	8.5	8.8
2011	9.3	8.0	9.1
2012	8.5	7.4	8.4
2013	7.8	7.1	8.1
2014	6.8	6.3	7.1
2015	5.7	5.3	6.1
2016	5.0	4.6	5.5
2017	4.7	3.8	4.7

UNEMPLOYMENT RATES
BY FISCAL YEAR



Source: U.S. Bureau of Labor Statistics, IHS Economics

SECTOR ANALYSIS

Energy

The cost of energy has an outsized impact on the economy. For most consumers, transportation and household energy are major expenses. Many improvements to energy efficiency, such as fuel efficient cars and replacement windows, require significant capital investment. Therefore, it is difficult for consumers to react to changes in energy prices in the short-term, often necessitating spending decisions in other areas. Just as increases in the price of oil can negatively impact consumers, price decreases can put money back into consumer's pockets.

The United States, like the rest of the industrialized world, relies heavily on three fossil fuels: crude oil, coal, and natural gas. The following three sections describe energy production and consumption for the world, the United States, and Connecticut.

Worldwide

World oil supply and demand among countries and regions continued to be significantly imbalanced in 2016. Both supply and demand increased slightly from 2015 levels. The following table illustrates the disparity between the world's suppliers of oil and its users. Members of the Organization of Petroleum Exporting Countries (OPEC) continued to supply more oil than they consumed. As an example, Saudi Arabia produced 12.35 million barrels per day (MBPD) while consuming 3.91 MBPD, generating an 8.44 MBPD surplus. The Organization for Economic Cooperation and Development (OECD), on the other hand, consumed more than it supplied. In 2016, the OECD consumed 46.22 MBPD, while supplying only 23.12 MBPD, registering a 23.10 MBPD deficit.

The United States had a 37.1% dependency rate on foreign oil supplies in 2016, up from 34.7% in 2015. However, this figure was still significantly lower than the 55.1% average over the prior ten-year period ending in 2015. The nation accounted for 20.3% of global demand and 13.4% of global supply. Similar deficits between supply and demand also exist in mature economies such as China, Japan, France, and Germany. The United States has become increasingly less reliant on foreign oil in recent years due to the development of new oil production technologies as well as increasing fuel efficiency. Prior to the Arab oil embargo of 1973, the United States was the largest oil producer in the world. After four decades, the US became the largest producer again in 2014.

Demand in China and India, the world's two most populous countries, continued its upward trend, accounting for a combined 17.5% of the worldwide demand total in 2016, up from 5.6% in 1991. China, the world's second largest consumer, switched from a net exporter of oil in 1993, and began running an increasing oil deficit as its economy continued to grow at a brisk pace. In 2016 China consumed 12.38 MBPD while supplying 4.00 MBPD, registering an 8.38 MBPD deficit. China had a 67.7% dependence rate on foreign oil in 2016, significantly larger than the United States.

TABLE 23
WORLD OIL SUPPLY AND DEMAND
Calendar Year 2016

	Supply			Demand	
	Millions of Barrels Per Day	% of Total		Millions of Barrels Per Day	% of Total
Total OECD (a)	23.12	25.1%	Total OECD	46.22	47.9%
United States	12.35	13.4%	United States	19.63	20.3%
Canada	4.46	4.8%	Canada	2.34	2.4%
Mexico	2.46	2.7%	Mexico	1.87	1.9%
Other OECD	3.85	4.2%	Japan	4.04	4.2%
			Germany	2.39	2.5%
Total OPEC (c)	39.36	42.7%	France	1.60	1.7%
Saudi Arabia	12.35	13.4%	Italy	1.23	1.3%
United Arab Emirates	4.07	4.4%	United Kingdom	1.60	1.7%
Iran	4.60	5.0%	Other OECD	11.52	11.9%
Iraq	4.47	4.9%			
Other OPEC	13.87	15.1%	Total Non-OECD	50.34	52.1%
			Russia	3.20	3.3%
All Other	29.67	32.2%	China	12.38	12.8%
Russia	11.23	12.2%	India	4.49	4.6%
China	4.00	4.3%	Saudi Arabia	3.91	4.0%
Other	14.44	15.7%	Other	26.36	27.3%
Total 2016 Supply	92.15	100.0%	**Total 2016 Demand**	96.56	100.0%
Total 2015 Supply	91.70		**Total 2015 Demand**	95.00	
Change	0.45	0.5%	Change	1.56	1.6%

Note:
(a) The OECD includes the United States, Western and some Eastern European countries, some Latin American countries, Israel, Australia, Canada, Japan, and New Zealand.
(b) The OPEC includes Algeria, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.
Totals may not add due to rounding.

Source: 2017 BP Statistical Review of World Energy

United States

The U.S. has the largest demand for world oil. While the country contains 4.4% of the world population and produces 13.4% of world oil, it consumes 20.3% of world oil. The nation has long been a net energy importer, although America's energy dependence has decreased in recent years. According to the Energy Information Administration's *Monthly Energy Review*, the U.S. consumed 97.4 quadrillion British Thermal Units (QBTU's) of energy in 2016, 80.7% of which were from fossil fuels.

National energy consumption rose steadily during the 1990s and 2000s before peaking in 2007. Changes in energy consumption are driven by overall economic conditions, the movement of prices, and increases in energy efficiency. The following table displays energy usage in the U.S. in 2016 by fuel type and by economic sector. Petroleum products are currently the most important energy source for the U.S. economy. The 36.0 quadrillion petroleum-generated BTU's accounted for 37.0% of U.S. energy consumption, followed by natural gas at 28.4 QBTU's and coal at 14.6 QBTU's.

TABLE 24
U.S. ENERGY CONSUMPTION IN 2016
(Quadrillion BTU's)

	Resi-dential	Com-mercial	In-dustrial	Trans-portation	Electric Generation	Total	% of Total
Fossil Fuels							
Natural Gas	4.5	3.2	9.6	0.8	10.3	28.4	29.2
Petroleum	1.0	0.9	8.3	25.6	0.2	36.0	37.0
Coal	-	-	1.2	-	13.0	14.2	14.6
Nuclear	-	-	-	-	8.4	8.4	8.7
Renewables							
Hydroelectric	-	-	-	-	2.5	2.5	2.5
Other*	0.6	0.2	2.3	1.4	3.3	7.8	8.1
Electricity	4.8	4.7	3.3	0.0	-	12.8	13.2
Electric Losses	9.3	9.0	6.5	0.1	(37.7)	(12.8)	(13.2)
Total Demand	20.2	18.0	31.3	27.9		97.4	100.0

Note: * Includes power generated from wood, biofuels, wind, waste, geothermal, tide, and solar/photovoltaic, as well as imported electricity.
Totals may not add due to rounding.

Source: U.S. Dept. of Energy, Energy Information Administration

The U.S. lags other developed countries in utilizing renewable energy. Hydroelectricity, for example, provided approximately 6.5% of electric generation in the U.S., versus approximately 60% in Canada. Capital investments in alternative renewable energy from solar, hydroelectric, wind, biofuels, and geothermal have increased dramatically in the U.S.; nonetheless, their share of power production remains relatively small. As of October 2017, the United States had 99 nuclear reactors in service. Nuclear generation accounted for 22.3% of domestic electricity net generation in 2016. The U.S. is the world's largest nuclear power producer, accounting for more than 30% of worldwide nuclear electricity production.

There are five energy-use sectors: residential, commercial, industrial, transportation, and electric power generation. The first four sectors are end-users while the last one is an intermediate-user consisting of all utility and non-utility facilities and equipment used in the electricity industry. The industrial sector was the largest end-user of energy, consuming 31.3 QBTU's in 2016, followed by transportation at 27.9 QBTU's, residential at 20.2 QBTU's, and commercial at 18.0 QBTU's.

In contrast to the relatively smooth trends in the other sectors, industrial consumption has shown the greatest fluctuation, dropping sharply in 1975, 1980-83, 2001-03, and 2008-09 in response to high oil prices and economic slowdowns. The electric power generation sector consumes and also produces energy. Energy losses occur throughout the entire electrical system beginning with utility generation in fossil-fired, nuclear or hydroelectric power plants all the way to the end-users. Energy losses are approximately two-thirds of total energy input during the conversion process of heat energy into mechanical energy for turning electric generators. Of the electricity generated, it is estimated that about 7% is lost in transmission and distribution.

Crude Oil Prices

Following the collapse of oil prices in the midst of the Great Recession, the refiner's acquisition cost rebounded, rising to around $100 per barrel in 2011 and hovered near that level through the first half of 2014. However, beginning in the fall of 2014, the cost of a barrel of oil began to decline significantly due to oversupply in the global market. In September 2015, the composite refiner acquisition cost was $45.53 a barrel; a more than 50% reduction from September 2014. Acquisition costs dropped another 20% from 2015 to 2016. Adjusted for inflation, 2011's annual price of $98.61 per barrel price in 2009 dollars was a modern high. In real terms, annual average refiner's acquisition costs dropped in each successive year following that peak through 2016. During the first nine months of 2017, refiner's acquisition costs were up slightly from 2016. However, they remained below their 2015 levels in 2009 dollars.

TABLE 25
CRUDE OIL PRICES AND U.S. CONSUMPTION
Refiners' Crude Oil Acquisition Costs* Per Barrel

Year	Current $	In 2009 $*
2008	94.74	95.46
2009	59.29	59.29
2010	76.69	75.76
2011	101.87	98.61
2012	100.93	95.93
2013	100.49	93.99
2014	92.02	84.55
2015	48.39	43.99
2016	40.66	36.49
2017**	48.68	43.03

Note: * Adjusted using implicit price deflator for gross domestic product.
** Average for the first three quarters.

Source: U.S. Department of Energy, Energy Information Administration

Shale Energy

Oil producers in the United States are increasingly able to extract natural gas and petroleum from shale formations across the country. Increased production of these fuels is attributable to the development of horizontal drilling and hydraulic fracturing ("fracking") technology. In the process of fracking, producers pump a mixture of water, sand, and chemicals into shale wells to extract natural gas and petroleum. In conjunction with horizontal drilling, this technique has made the development of shale energy sources economically feasible. As a result, energy resources in the country have increased. The amount of proven natural gas reserves have grown dramatically since the introduction of this technology. The ability to use fracking technology to extract fossil fuels has reduced the United States' dependency on foreign energy.

Efficiency

Increasing efficiency has been a focal point of the nation's energy conservation policy. Energy regulatory agencies have been aggressively protecting the environment by promoting energy-efficient products over the past two decades. The National Appliance Energy Conservation Act of 1987 set minimum efficiency standards for 13 appliances and prohibited the sale if standards were not met. In 1992, the EPA embarked upon "*Energy Star*" as a voluntary labeling program to identify and promote energy-efficient products to reduce greenhouse gas emissions. *Energy Star* products use less energy and help protect the environment. The *Energy Star* label now covers

product categories from small battery chargers to central air conditioners, and includes appliances, electronics, heating and cooling equipment, office equipment, lighting, commercial food services, and new buildings and plants with additional energy-saving features that are 20–30% more efficient than standard homes. To promote energy efficient buildings in the U.S., Leadership in Energy and Environmental Design (LEED), a non-profit organization under the U.S. Green Building Council (USGBC), provides green building rating standards for environmentally sustainable construction and design.

Aside from energy conservation, increased productivity also promotes energy efficiency. Productivity, a crucial ingredient in the economy's long-term vitality, is a measure of economic efficiency which relates to how effectively economic inputs are converted into output. Productivity is measured by comparing the amount of goods and services produced with the inputs that are used in production. A measure of efficiency is the amount of energy used to produce a dollar of Gross Domestic Product (GDP). The following table compares U.S. consumption of fuel sources and illustrates the nation's improvement in energy efficiency.

TABLE 26
U.S. PRIMARY ENERGY CONSUMPTION & ENERGY EFFICIENCY

	U.S. Energy Consumption		GDP	BTU	
Calendar	Total	Annualized	Billion	Per $1 GDP	Annualized
Year	Quadrillion BTU's	% Change*	(In 2009$)	(In 2009$)	% Change*
1990	84.48	2.0	8,955.0	9,434	(1.3)
1995	91.03	1.5	10,174.8	8,947	(1.1)
2000	98.82	1.7	12,559.7	7,868	(2.5)
2005	100.19	0.3	14,234.2	7,039	(2.2)
2010	97.44	(0.6)	14,783.8	6,591	(1.3)
2011	96.85	(0.6)	15,020.6	6,448	(2.2)
2012	94.41	(2.5)	15,354.6	6,149	(4.6)
2013	97.16	2.9	15,612.2	6,224	1.2
2014	98.32	1.2	16,013.3	6,140	(1.3)
2015	97.36	(1.0)	16,471.5	5,911	(3.7)
2016	97.41	0.0	16,716.2	5,827	(1.4)

*Annualized percent change calculated using a compound annualized growth rate formula
Source: U.S. Dept. of Energy, Energy Information Administration, *Monthly Energy Review*
U.S. Dept. of Commerce, Bureau of Economic Analysis

Between 1990 and 2015, energy consumption per dollar of real GDP decreased at a compound annual rate of 1.8% per year. In 1990, 9,434 BTU's of energy were required to produce $1 of GDP measured in 2009 dollars. In 2016, that number was 5,827 BTU's, a 38% reduction. The long-term

decline in energy consumption per dollar of GDP resulted from efficiency improvements and a structural shift from energy intensive industries to those that consume less energy but create more value added products, such as finance, banking, and professional services. However, improvements in energy efficiency vary from period to period, depending upon energy prices, consumers' consumption habits, and technology improvements. Efficiency tends to stagnate when fuel prices decline; as oil prices fall, the incentive to conserve energy diminishes.

Oil Stability Program

To protect against supply disruptions, the United States created a Strategic Petroleum Reserve (SPR) under the Energy Policy and Conservation Act of 1975 (EPCA). The SPR program was established as a 750 million barrel capacity crude oil reserve with the objective of achieving a maximum draw-down rate within 15 days of the notice to proceed, and currently has a design capacity of 714 million barrels. As of December 2017, the reserve held 663.7 million barrels of crude oil, equivalent to 33 days of crude oil consumption.

Connecticut

Connecticut is one of the most energy efficient states in the nation. The state consumed 3.3 thousand BTU's per 2009 chained dollar of Gross State Product in 2015, the latest available data. Connecticut was one of the most efficient states based on this measure, behind only the District of Columbia and New York. Connecticut was 44% below the national average of 5.9 thousand BTU's. When compared to the national per person consumption, Connecticut residents are moderate energy users. Connecticut consumed 210 million BTU's per capita in 2015, ranking 46th among the 50 states plus the District of Columbia, behind New York, Rhode Island, California, and Hawaii, as well as tying with Florida. Connecticut was 31% below the national figure of approximately 303 million BTU's per capita. The state has few local energy sources, and it must import nearly all the energy that it consumes. This situation affects Connecticut consumers' energy choices and results in prices that are higher than the national average. In 2015, Connecticut residents spent $23.37 per million BTU, compared to $17.31 for the nation.

TABLE 27
CONSUMER ENERGY PRICES IN THE UNITED STATES AND CONNECTICUT*
Nominal Dollars per Million BTU in 2015

	Natural Gas	Motor Gasoline	Distillate Fuel Oil*	All Petroleum**	Retail Electricity	Total Energy
Connecticut	$7.11	$20.75	$19.26	$20.28	$52.09	$23.37
United States	$5.61	$20.21	$18.59	$17.94	$30.66	$17.31
CT as a % of the U.S.	127%	103%	104%	113%	170%	135%

Note: * Includes diesel fuels and fuel oils used for residential space heating.
** Includes motor gasoline, residential and distillate fuel oil, liquefied petroleum gases, and jet fuel, etc.

Source: U.S. Department of Energy, Energy Information Administration, *State Data 2015*

The above table compares various prices to the national average for natural gas, motor gasoline, distillate fuel oil, residential electricity, and total average energy paid by consumers in 2015, the latest data available. Overall energy costs in Connecticut in 2015 were 35% higher than the national average, with retail electricity prices 70% higher than the national average.

TABLE 28
CONNECTICUT ENERGY CONSUMPTION IN 2015
(Trillion BTU's)

Fuels	Resi-dential	Com-mercial	In-dustrial	Trans-portation	Electric Generation	CT Total	% of CT Total	% of US Total
Natural Gas	52.3	53.9	26.3	5.3	123.2	260.9	34.7	29.0
Petroleum	67.7	20.7	14.7	220.5	3.8	327.4	43.6	37.9
Coal	-	-	-	-	6.5	6.5	0.9	16.0
Nuclear	-	-	-	-	182.1	182.1	24.2	8.6
Hydroelectric	-	-	-	-	2.8	2.8	0.4	2.4
Other	7.0	1.8	2.5	-	16.0	27.3	3.6	6.1
Deliv. Elec.	44.0	44.2	11.7	0.7	-	100.6	13.4	13.2
Deliv. Losses	78.0	78.4	20.8	1.2	(334.3)	(156.0)	(20.8)	(13.2)
Total Demand	249.0	199.0	76.0	227.6	-	751.6	100.0	100.0
% of Total-CT	33.1	26.5	10.1	30.3	-	100.0		
% of Total-U.S.	21.1	18.6	32.3	28.0	-	100.0		

Note: Other includes power generated from wood, biofuels, wind, waste, geothermal, tide, and solar/photovoltaic, as well as imported electricity.
Totals may not add due to rounding.

Source: U.S. Department of Energy, Energy Information Administration, *State Energy Data 2015*

The preceding table displays the amount and percentage share of total energy consumed in Connecticut by fuel source and sector in 2015, the latest available data. Compared to the nation, petroleum and natural gas provide more of Connecticut's energy needs, while coal provides significantly less. Petroleum remains the main source of energy in Connecticut because it is easily transported and fuel oil is a significant source to heat homes. In 2014, 44.0% of Connecticut households used fuel oil for home heating, followed by natural gas at 33.6%, electricity at 15.5%, others at 3.4%, and liquefied petroleum gases at 3.5%. The state's petroleum products are received at the ports in New Haven, New London, and Bridgeport, and shipped by barge on the Connecticut River to central Connecticut. Additionally, a pipeline runs from New Haven to Springfield, Massachusetts, supplying petroleum to Hartford and northern Connecticut.

Connecticut is also more reliant on nuclear energy and less reliant on coal for electric generation than the United States. In 2015, the latest data available, the state generated 37.5 million net megawatt hours of electricity, primarily from nuclear power. Retail sales within the state were at 29.5 million megawatt hours of electricity. This implies that Connecticut was more than 100% electricity self-sufficient, unlike 2000, when the state generated 56.8% of its own demand and relied on imports from other states and Canada for the balance of its need while certain nuclear reactors were shut down for servicing. The power grid that supplies electricity to the entire state is owned and operated by both private and municipal electric companies. Transmission lines connect Connecticut with New York, other New England states, and Canada. These interconnections allow the companies serving Connecticut to meet large or unexpected electric load requirements from resources located outside of Connecticut's borders.

All electric utilities in the state are members of the New England Power Pool and operate as part of the regional bulk power system. An independent system operator, ISO New England Inc., operates this regional system. In 2016, there were 1,643,335 electric consumers in Connecticut. Of these, 90.5% were residential customers, 9.3% were commercial customers, and 0.3% were industrial and transportation customers. Approximately 90% of the electricity was sold by two investor-owned companies: Eversource and United Illuminating.

Natural gas is delivered to Connecticut through pipelines that traverse the state. Natural gas pipeline supplies are generally shipped to Connecticut from Canada and the Gulf of Mexico area, although development of the Marcellus Shale Formation in New York and Pennsylvania could provide additional supply to the region. Connecticut also receives liquefied natural gas (LNG) through interstate pipelines from a terminal located in Boston, Massachusetts which is supplied by LNG tanker ships. Natural gas service is provided to parts of the state through one municipal and three private gas distribution companies. Since 1996, the state's Public Utilities Regulatory Authority (formerly DPUC) has allowed some competitive market forces to enter the natural gas industry in the state. Commercial and industrial gas consumers can choose non-regulated suppliers for their natural gas requirements. Natural gas is delivered to consumers using the local distribution company's mains and pipelines. Located at or near the end of pipelines,

Connecticut's distribution companies have to pay higher transportation costs and outbid other buyers in order to gain access rights to the gas wellhead.

Gasoline Consumption and Automotive Fuel Economy

In the U.S., highway vehicles consume approximately 98% of all gasoline, with about 2% used for other purposes such as agriculture, aviation, construction and boating. In 2015, the latest data available, gasoline consumption in the U.S. totaled 141.8 billion gallons, with Connecticut accounting for 1.48 billion gallons, 1.04% of the nation's consumption. The table below shows gasoline consumption for the U.S. and Connecticut since 1995.

In 2015, Connecticut residents consumed 412.1 gallons of gasoline per capita, versus 439.2 gallons per capita for the nation. Per capita consumption is attributable to several factors, including gas prices, income levels, traffic conditions, average weight of vehicles, distance residents drive to work or shop, and percentage of workers telecommuting or ride sharing. As one of the smallest and most densely populated states in the nation, Connecticut residents generally commute shorter distances to work and shop. Per capita consumption reached a peak in 2005, and has fallen faster in Connecticut than in the U.S. since then. Between 2005 and 2015, per capita consumption decreased more than 10% in Connecticut, versus 7% for the nation. This has reduced Connecticut's per capita consumption to 93.8% of the U.S. amount in 2015.

As the highest per capita personal income state in the nation, Connecticut residents tend to own more automobiles. Connecticut residents owned 406 private and commercial automobiles per 1,000 residents in 2015, versus 350 for the nation. Also, Connecticut had 707 driver licenses per 1,000 residents in 2015, compared to 671 licenses for the nation. Connecticut residents trail the nation as a whole in the use of carpooling. The United States Census Bureau estimates that in 2013, of those commuting to work by car, 9.6% of Connecticut residents carpooled, versus 10.9% for the nation as a whole.

TABLE 29
GASOLINE CONSUMPTION IN THE UNITED STATES & CONNECTICUT

Calendar Year	U.S.* Total Gallons (000's)	Annual** % Change	CT Total Gallons (000's)	Annual** % Change	Gallons Per Capita U.S.*	Gallons Per Capita CT	CT/U.S.* (%)
1995	120,875,789	1.9%	1,302,750	0.0%	453.3	391.7	86.4%
2000	132,279,950	1.8%	1,476,340	2.5%	468.2	432.4	92.3%
2005	140,338,710	1.2%	1,614,697	1.8%	474.3	460.3	97.0%
2006	140,320,089	0.0%	1,566,875	-3.0%	469.7	445.3	94.8%
2007	140,436,133	0.1%	1,567,360	0.0%	465.7	444.0	95.3%
2008	136,499,418	-2.8%	1,494,164	-4.7%	448.4	421.2	93.9%
2009	136,877,949	0.3%	1,512,081	1.2%	445.7	424.3	95.2%
2010	137,592,937	0.5%	1,514,622	0.2%	444.4	423.1	95.2%
2011	135,204,475	-1.7%	1,467,953	-3.1%	433.5	409.0	94.3%
2012	134,998,800	-0.2%	1,449,384	-1.3%	429.7	403.5	93.9%
2013	135,595,239	0.4%	1,438,625	-0.7%	428.5	400.0	93.3%
2014	137,883,016	1.7%	1,434,867	-0.3%	432.4	398.9	92.3%
2015	141,757,545	2.8%	1,479,844	3.1%	439.2	412.1	93.8%
Average 2010-2015					434.6	407.8	93.8%

* Fifty states plus Washington, D.C.
** Annual growth calculated using compound annual growth rate formula
Source: U. S. Dept. of Transp., Office of Highway Information Management, *Highway Statistics*

Corporate Average Fuel Economy (CAFE)

The United States Department of Transportation (DOT) is required to set corporate average fuel economy (CAFE) standards for automobile fuel efficiency. This responsibility is administered by the National Highway Traffic Safety Administration (NHTSA). The measurement of CAFE is performed by manufacturers and reported to the U.S. Environmental Protection Agency. Federal law imposes a civil penalty of $5.50 for each tenth of a MPG by which a manufacturer's CAFE level falls short of the standard, multiplied by the total number of passenger automobiles or light trucks produced by the manufacturer in that model year. According to NHTSA data, total fleet performance in MY 2015 was 32.2 miles per gallon, while the fleet standard was 31.6 miles per gallon. This was a 31% improvement in the total fleet fuel efficiency since 2004, when the total fleet performance was 24.6 miles per gallon.

Fluctuations in Gasoline Prices

Short-term gasoline prices have long been known for their drastic volatility, often rising and dropping markedly during short periods of time. The average retail gasoline price for all grades in the U.S. in October of 2017 was $2.62 per gallon, compared to $2.36 in October of 2016 and $2.39 in October of 2015. The average retail price for all grades hit an all-time high of $4.11 in July of 2008, before plummeting to $1.75 in December that same year. Changes in gasoline prices are determined by the cost of crude oil, supply and demand of fuel, any disruption of refinery operations, inventory levels, seasonality and weather conditions, the regulation of environmental standards, and geopolitical conditions.

The long run nominal price shows a relatively stable upward trend except for sharp upticks in the early 1980s and the most recent years. The following table shows the history of retail motor gasoline prices in the U.S. Prices averaged approximately 30 cents per gallon during the 1950s through the early 1970s. Prices began increasing after the Arab oil embargo in 1973. They rose to an average of $3.30 per gallon in 2008 before declining to an average of $2.41 per gallon in 2009. The annual average price has hovered around $3.50 through 2014, and has been closer to $2.50 in more recent years. The real prices listed are adjusted for inflation in 2009 dollars. In 2012, the average real price reached a high of $3.50 per gallon in 2009 dollars.

TABLE 30
RETAIL MOTOR GASOLINE PRICES
(Dollars per Gallon, Regular Gasoline)

Calendar Year	Nominal Price	Real Price*	Calendar Year	Nominal Price	Real Price*
1950	$0.27	$1.96	2008	$3.30	$3.32
1960	0.31	1.77	2009	2.41	2.41
1970	0.36	1.58	2010	2.84	2.80
1980	1.25	2.82	2011	3.58	3.46
1990	1.16	1.74	2012	3.68	3.50
2000	1.52	1.86	2013	3.58	3.34
2005	2.31	2.52	2014	3.44	3.16
2006	2.62	2.76	2015	2.52	2.29
2007	2.84	2.92	2016	2.25	2.02
			2017**	2.50	2.21

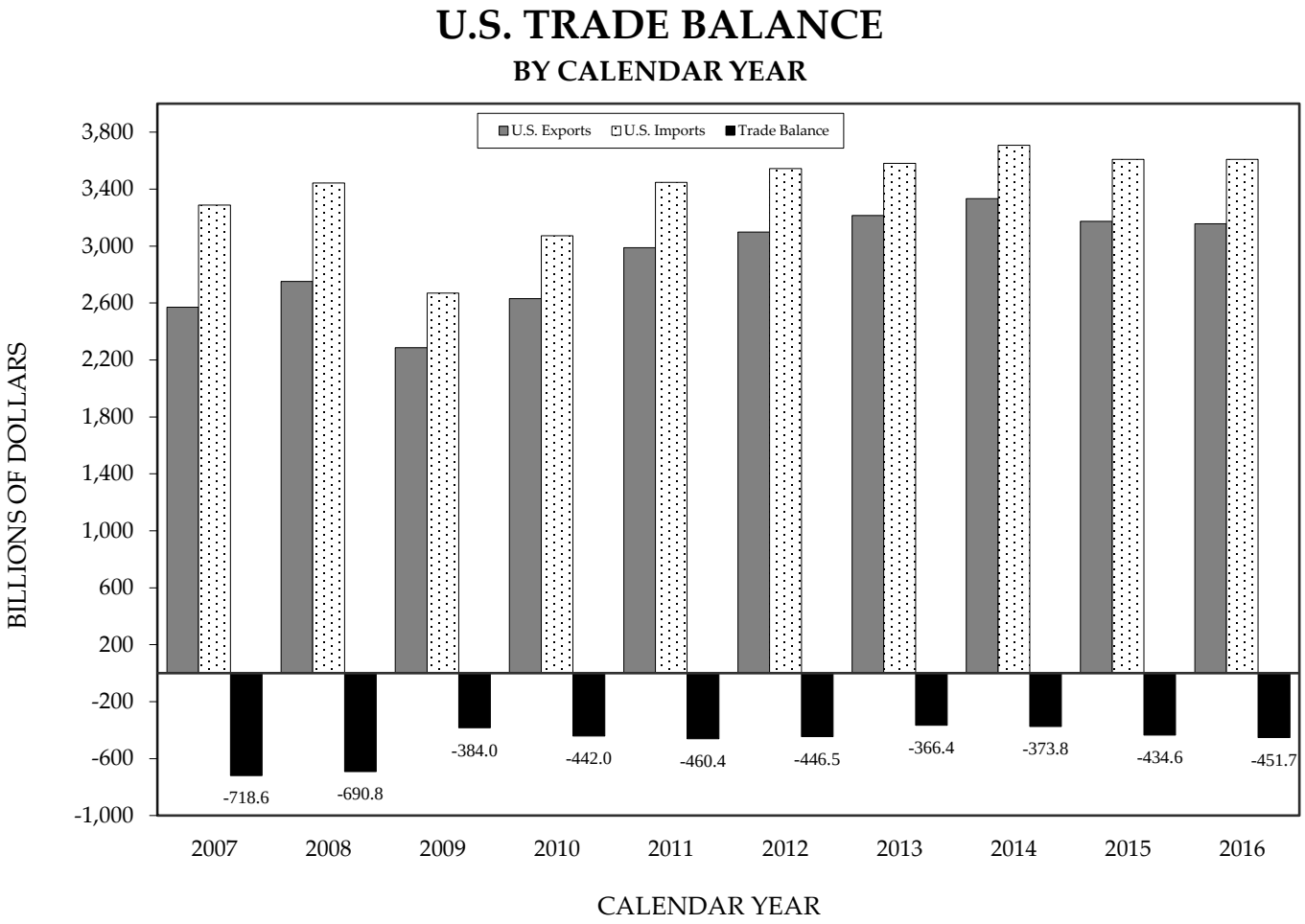
Note: Prices for 1950 to 1970 are leaded regular; 1980 and after are unleaded regular.
* Adjusted by GDP Price Deflator (2009=100)
** First three quarters of 2017

Source: U.S. Dept. of Energy, Energy Information Administration; Bureau of Economic Analysis

Export Sector

Trade has played an important role in the U.S. economy. U.S. real exports and imports of goods and services accounted for 28.0% of Gross Domestic Product (GDP) in 2015, down from the previous peak of 31.0% in 2013. Exports and a favorable balance of payments have traditionally been important to the growth of the U.S., affecting employment, production, and income. Real exports of goods and services have been significantly boosting economic growth over the past decades. Total trade exports have grown 22.9% from 2007 through 2016, while total trade imports have grown 9.8% over the same time period.

The following graph illustrates the United States' trade balance for the past ten years. In 2016, the deficit increased to $451.7 billion, up from $434.6 billion in 2015.



Source: U.S. Department of Commerce, Bureau of Economic Analysis

Consistent with recent history, the United States trade balances in the past decade generally improved during recession years and deteriorated during recovery and expansionary periods. Since 2008 the U.S. trade balance has improved compared to the early 2000s and has remained relatively stable over the past five years.

TABLE 31
U.S. TRADE DEFICIT BY CATEGORY
(In Billions of Dollars)

	2015			2016		
	Exports	Imports	Balance	Exports	Imports	Balance
Total Trade	**3,173.0**	**3,607.6**	**(434.6)**	**3,157.2**	**3,608.9**	**(451.7)**
Merchandise	**1,510.7**	**2,272.6**	**(761.9)**	**1,455.7**	**2,208.2**	**(752.5)**
Foods/Beverages	127.7	128.8	(1.0)	130.6	131.0	(0.5)
Industrial Supplies & Materials	417.4	492.2	(74.8)	386.8	441.8	(55.1)
Capital Goods, Excluding Autos	539.8	606.8	(67.0)	519.8	593.9	(74.1)
Autos	151.9	350.0	(198.1)	150.3	351.1	(200.7)
Consumer Goods	197.4	596.6	(399.1)	193.4	585.4	(391.9)
Others	76.5	98.2	(21.8)	74.8	105.0	(30.2)
Services	**753.2**	**491.7**	**261.4**	**752.4**	**504.7**	**247.7**
Travel & Transportation	293.0	211.8	81.2	290.3	220.4	69.8
Business Services	291.1	209.5	81.6	293.2	209.5	83.7
Royalties & License fees	124.4	39.9	84.6	124.5	44.4	80.1
Other Services	44.6	30.6	14.0	44.4	30.3	14.1
Investment Income	**909.1**	**843.2**	**65.8**	**949.2**	**896.1**	**53.1**
Direct Investment	436.9	170.4	266.5	444.0	185.2	258.8
Portfolio Investment Income	308.0	398.4	(90.4)	324.1	409.2	(85.1)
U.S. Gov't Receipts/Payments	126.1	241.2	(115.1)	135.2	255.3	(120.1)
Other Investment Income	38.1	33.3	4.8	45.9	46.4	(0.5)
			Net Change From Previous Year			
Total Trade	**(160.4)**	**(99.5)**	**(60.8)**	**(15.7)**	**1.3**	**(17.1)**
Merchandise	**(123.3)**	**(112.9)**	**(10.4)**	**(55.0)**	**(64.4)**	**9.4**
Foods/Beverages	(16.0)	2.0	(17.9)	2.8	2.3	0.5
Industrial Supplies & Materials	(83.2)	(183.3)	100.1	(30.7)	(50.4)	19.7
Capital Goods, Excluding Autos	(12.0)	8.0	(20.0)	(19.9)	(12.9)	(7.0)
Autos	(7.9)	20.5	(28.4)	(1.6)	1.0	(2.6)
Consumer Goods	(1.0)	37.9	(38.8)	(4.0)	(11.2)	7.2
Others	(3.2)	2.1	(5.3)	(1.7)	6.8	(8.4)
Services	**11.2**	**11.0**	**0.3**	**(0.8)**	**12.9**	**(13.7)**
Travel & Transportation	10.4	11.9	(1.5)	(2.8)	8.7	(11.4)
Business Services	3.2	2.3	0.9	2.1	(0.0)	2.1
Royalties & License fees	(5.3)	(2.1)	(3.1)	0.0	4.5	(4.5)
Other Services	2.9	(1.2)	4.1	(0.1)	(0.3)	0.1
Investment Income	**(48.3)**	**2.3**	**(50.7)**	**40.1**	**52.8**	**(12.7)**
Direct Investment	(37.9)	(27.7)	(10.2)	7.1	14.8	(7.7)
Portfolio Investment Income	3.0	20.8	(17.9)	16.1	10.8	5.3
U.S. Gov't Receipts/Payments	(14.0)	6.9	(20.9)	9.1	14.1	(5.0)
Other Investment Income	0.6	2.3	(1.8)	7.8	13.1	(5.3)

Note: Percent changes were derived before rounding to billions.
Source: U.S. Bureau of Economic Analysis

Merchandise Trade

According to the U.S. Department of Commerce, international trade is classified into three categories: merchandise trade, service transactions, and investment income. There are six subcategories within merchandise trade including: foods and beverages; industrial supplies and materials; capital goods excluding autos; autos; consumer goods and others. The deficit in merchandise trade decreased by $9.4 billion for a total deficit of $752.5 billion in 2016, down from $761.9 billion in 2015. This decrease was largely the result of decreases in the importation of industrial supplies and materials.

Of the total trade deficit of $451.7 billion, consumer goods and autos accounted for the largest portions of the deficit, reaching $391.9 billion and $200.7 billion, respectively in 2016. Consumer goods consist of durables and nondurables. Durable goods include household and kitchen appliances such as radio and stereo equipment, televisions and video receivers, bicycles, watches, toys and sporting goods. Nondurables include footwear, apparel, medical, dental and pharmaceutical preparations. The trade deficit in the consumer goods category decreased in 2016 by $7.2 billion.

The second largest portion of the deficit occurred in autos. This category includes automotive vehicles, parts and engines. In 2016, the U.S. imported $351.1 billion worth of these goods compared to the $150.3 billion that the U.S. exported. The autos trade deficit at $200.7 billion represents a $2.6 billion increase from the deficit of $198.1 billion in 2015.

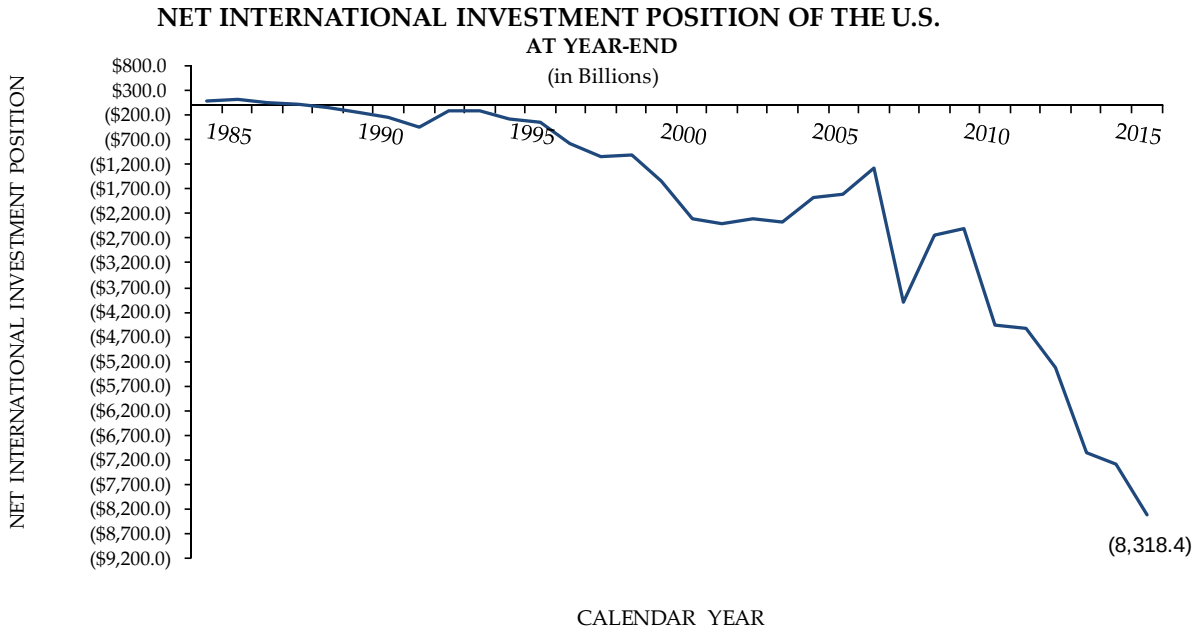
Service Transactions

The United States is highly competitive in the delivery of services. However, the surplus in service transactions decreased to $247.7 billion in 2016, from a surplus of $261.4 billion in 2015. Imports increased 2.6% to $504.7 billion while exports of services decreased -0.1% to $752.4 billion. Of the $247.7 billion total surplus in 2016, $83.7 billion was attributable to business services.

Investment Income

The balance in investment income registered a surplus of $53.1 billion in 2016. Investment income contains two components: 1) receipts generated from U.S.-owned assets abroad including direct investments, other private securities such as U.S. government-owned securities, corporate bonds and stocks, and 2) compensation receipts of workers employed abroad in international organizations and foreign embassies stationed in the U.S., including wages, salaries, and benefits. Payments are the counterpart of U.S. receipts; they are paid on foreign-owned assets invested in the U.S. There are six major types of foreign assets in the United States, including U.S. government securities held by foreign governments and the private sector, direct investments, and liabilities captured by private bonds, corporate stocks and U.S. banks.

According to the U.S. Bureau of Economic Analysis, in calendar 2016 foreign assets in the U.S., measured at current cost, increased by $1,321.9 billion, or 4.3%, to $32,167.8 billion, compared to an increase of $497.1 billion to $23,849.4 billion for U.S. assets abroad. This placed U.S. international investment at a net negative $8,318.4 billion. Historically U.S. direct investment in assets abroad exceeded foreign direct investment in the U.S. However, in 2016 the U.S.'s direct investment abroad was $7,375.0 billion and foreign direct investment in the U.S. was $7,569.3 billion, registering -$194.3 billion in net investment. Foreign assets in the United States are mostly in securities such as bonds and stocks issued by the U.S. Treasury and corporations.



Source: U.S. Bureau of Economic Analysis

Connecticut Exports

In Connecticut, the export sector has assumed an important role in the state's overall economic growth. State exports of goods for the past five years averaged 6.2% of Gross State Product (GSP).

According to figures published by the United States Department of Commerce, which were adjusted and enhanced by the World Institute for Social and Economic Research to capture a greater percent of indirect exports, Connecticut exports of commodities totaled $14,394.2 million in 2016, down from 5.6% from 2015. The state's economy benefits from goods produced not only for direct shipment abroad but also from those that are ultimately exported from other states. These indirect exports are important in industries whose products require further processing such as primary metals, fabricated metal products and chemicals. In addition, indirect exports are important in industries whose products constitute components and parts for assembly into machinery, electrical equipment and transportation equipment.

Connecticut industries that rely most heavily on exports are Transportation Equipment (NAICS 336), Nonelectrical Machinery (NAICS 333) and Computer & Electronic Equipment (NAICS 334). The top three industries accounted for 63.2% of Connecticut's foreign sales in 2016. The following table shows the breakdown of major products by NAICS code for the past five years. In 2016, transportation equipment, which includes aircraft engines and spare parts, gas turbines, and helicopters and spacecraft accounted for 43.2% of total exports down from 46.0% of exports in 2015. In terms of average annual growth from 2012 to 2016, Miscellaneous Manufacturing posted the strongest growth at 4.6%, followed by Fabricated Metal at 3.4%.

Overall growth in exports of commodities for the past five years averaged -2.4%. Exports of $14.4 billion are estimated to account for 5.5% of Connecticut Gross State Product (GSP) in 2016, which is lower than the 6.0% level in 2015.

TABLE 32
COMMODITY EXPORTS ORIGINATING IN CONNECTICUT BY PRODUCT
(In Millions of Dollars)

NAICS	Industry	2012	2013	2014	2015	2016	Percent of 2016 Total	Average Growth 12-16
322	Paper	146.3	141.1	142.7	131.2	137.0	1.0%	-1.6%
325	Chemicals	1,026.2	992.6	971.0	1,039.5	864.7	6.0%	-4.2%
326	Plastics and Rubber	267.6	239.8	233.5	230.3	224.9	1.6%	-4.3%
331	Primary Metal	704.3	648.2	637.8	675.6	505.1	3.5%	-8.0%
332	Fabricated Metal	690.4	720.2	733.6	706.7	789.0	5.5%	3.4%
333	Machinery, exc. Elec.	1,761.2	1,758.8	2,072.8	1,666.6	1,770.4	12.3%	0.1%
334	Comp. & Electronic	1,365.9	1,237.0	1,270.6	1,191.0	1,109.0	7.7%	-5.1%
335	Electrical Equipment	873.3	900.1	1,002.9	1,032.9	958.7	6.7%	2.4%
336	Transportation	7,158.2	8,004.8	7,318.6	7,012.6	6,217.3	43.2%	-3.5%
339	Misc. MFG	273.1	307.8	330.7	326.2	327.3	2.3%	4.6%
	Other	1,604.6	1,476.3	1,248.6	1,229.7	1,490.8	10.4%	-1.8%
Total Commodity Exports		15,871.1	16,426.7	15,962.8	15,242.4	14,394.2		-2.4%
	% Growth	-2.2%	3.5%	-2.8%	-4.5%	-5.6%		
Gross State Product ($M)		239,462	240,976	244,628	255,517	259,919		
	% Growth	2.2%	0.6%	1.5%	4.5%	1.7%		2.1%
Exports as a % of GSP		6.6%	6.8%	6.5%	6.0%	5.5%		6.2%

Source: World Institute for Strategic Economic Research (WISERTrade.org)

The bulk of Connecticut's exports are shipped by air from Bradley International Airport and by sea from the port of New Haven. In 2016, exports originating from Connecticut totaled $14.4 billion, with 64.8% of the total being shipped by air, 13.4% being delivered by sea, and the

remaining 21.8% being transported inland by railroad or truck to Canada, Mexico or other states for further shipment to other countries. This compares with 55.4% by air, 17.6% by sea, and 27.5% by land for exports totaling $4.5 billion in 1990. This reflects the demand for meeting just-in-time inventory requirements, with the majority of goods transported by air as that mode of transportation provides more frequent departures and faster transit times.

The following table shows the ten major foreign countries to which state firms export their products. France is again the largest destination country in 2016 at 13.6% of total exports, followed by Germany, Canada, United Arab Emirates, and Mexico. These five countries accounted for 52.4% of total state exports in 2016. Exports to the United Kingdom have grown the fastest in the past five years at an average growth rate of 9.3%.

TABLE 33
COMMODITY EXPORTS ORIGINATING IN CONNECTICUT BY COUNTRY
(In Millions of Dollars)

Destination	2015 Rank	2012	2013	2014	2015	2016	Percent of 2016 Total	2012-2016 Average Growth Rate
France	1	1,906.6	2,425.3	2,213.3	1,942.9	1,953.3	13.6%	0.6%
Germany	2	1,485.7	1,397.2	1,715.6	1,654.3	1,641.7	11.4%	2.5%
Canada	3	1,914.8	1,909.7	1,939.3	1,623.1	1,636.1	11.4%	-3.9%
U.A.E.	4	1,089.2	1,212.1	1,142.0	1,592.1	1,241.8	8.6%	3.3%
Mexico	5	1,142.2	1,213.3	1,280.7	1,319.1	1,060.5	7.4%	-1.8%
United Kingdom	6	625.7	693.8	721.4	885.4	893.2	6.2%	9.3%
China	7	1,008.9	912.5	907.3	1,028.9	798.4	5.5%	-5.7%
Japan	8	573.5	527.6	540.8	526.5	526.1	3.7%	-2.1%
Netherlands	9	508.8	486.7	490.2	476.6	499.1	3.5%	-0.5%
South Korea	10	551.1	569.3	659.9	457.5	364.7	2.5%	-9.8%
Other Areas		5,064.7	5,079.3	4,352.3	3,736.0	3,779.5	26.3%	-7.1%
Total		15,871.1	16,426.7	15,962.8	15,242.4	14,394.2	100.0%	-2.4%

Source: World Institute for Strategic Economic Research (WISERTrade.org)

In an effort to create jobs and investment, the Connecticut Department of Economic and Community Development has continued to work with a number of foreign companies to establish branches in Connecticut. As a result of this work, foreign countries continually invest and own firms in the state. This foreign investment is an important stimulus for Connecticut's economic growth and future productivity as 6.9% of the state's total private industry employment in 2016 was a result of foreign investment. In 2014, 99,400 Connecticut workers were employed by foreign-controlled companies, a reduction of 800 since 2012. Major sources of foreign

investment in Connecticut in 2016 included the Netherlands, the United Kingdom, Germany, and Japan.

Connecticut's Defense Industry

The defense industry is an integral part of Connecticut's manufacturing sector, and has been since the inception of the United States as a nation. The state's economy is still affected by the volume of defense contracts awarded or subcontracted to Connecticut firms.

In federal fiscal year (FFY) 2016, contractors in the state were awarded $14.1 billion worth of defense-related prime contracts, with the heaviest concentration in the state's transportation equipment sector. This was up 16.4% from the $12.1 billion received in awards in FFY 2015. Of the total awarded, the following five companies were the top contractors in the state, primarily for the described areas of work:

1. United Technologies Corp. — Aircraft, Engines & Turbines
2. General Dynamics Corp. — Submarines
3. Northrop Grumman — Aerospace
4. Gartner, Inc. — Information Technology
5. Applied Physical Sciences Corp. — Research and Development

The following table shows the distribution of prime defense contracts in the state by program or type of work, with a heavy reliance on submarines and rotary wing aircraft, which is very different from the national distribution of all contracts awarded. It is this concentration in large weapon programs which plays a role in the volatility of state awards.

TABLE 34
VALUE OF PRIME CONTRACT AWARDS BY PROGRAM IN FFY 2013
(In Millions)

Connecticut Program	Value	Percent	United States Program	Value	Percent
Combat Ships and Landing Vessels	$ 4,785	33.8%	Aircraft Fixed Wing	$ 29,122	10.4%
Gas Turbines and Jet Engines	3,420	24.2%	Engineering & Tech Services	13,978	5.0%
Aircraft, Rotary Wing	2,559	18.1%	General Healthcare Services	11,505	4.1%
Maintenance and Repair of Equipment	600	4.2%	Combat Ships and Landing Vessels	9,927	3.6%
R&D Defense Systems	535	3.8%	Aircraft, Rotary Wing	7,247	2.6%
Other	2,239	15.8%	Other	207,012	74.3%
Total	$14,139	100.0%	Total	$278,791	100.0%

Source: Federal Procurement Data System (FPDS.gov)

The following table displays the geographic distribution of prime defense contracts within the state, with the majority of the work in Fairfield, New London and Hartford Counties.

TABLE 35
GEOGRAPHIC DISTRIBUTION OF CONNECTICUT PRIME AWARDS
(And Total Awards in Thousands of Dollars)

	FFY 2012	FFY 2013	FFY 2014	FFY 2015	FFY 2016
Fairfield	42.0%	29.5%	26.2%	27.6%	28.1%
Hartford	23.1%	26.4%	18.9%	28.7%	33.0%
Litchfield	0.3%	0.3%	0.2%	0.3%	0.2%
Middlesex	0.4%	0.1%	0.1%	0.1%	0.1%
New Haven	0.7%	0.6%	0.7%	0.5%	0.6%
New London	33.4%	42.8%	53.8%	42.6%	37.8%
Tolland	0.1%	0.2%	0.1%	0.1%	0.1%
Windham	0.0%	0.0%	0.1%	0.1%	0.0%
State Total	100.0%	100.0%	100.0%	100.0%	100.0%
State Total	$12,750,298	$10,032,845	$13,207,927	$12,146,972	$14,139,317

Source: Federal Procurement Data System

Prime defense contracts have tended to be "leading" indicators of the state's economic activity. This means that changes in defense contract awards precede changes in employment. However, new defense contract awards cannot be directly converted into anticipated employment gains or losses because: a) contracts have different terms and different completion dates; b) subcontracting on prime awards may be done by firms in different states; c) research and development contracts are usually capital intensive rather than labor intensive; d) there often exists a time lag between contract award and funding availability; and e) as productivity improvements are achieved over time by manufacturers, the same (or greater) amount of work can be done by fewer employees. Nearly all defense related employment within Connecticut falls under the Bureau of Labor Statistics' Transportation Equipment category.

To compare the relative volatility of contract awards with defense related employment, the coefficient of variation is used: the larger the number, the greater the volatility. It is derived by dividing the standard deviation of a variable by its mean. The coefficient of variation for the state's defense contract awards over the past decade was 0.134 compared with 0.030 for transportation equipment employment. This implies that the fluctuations in transportation employment are milder than the fluctuations in defense contract awards. Because most defense contract awards are long-term projects, there is usually a backlog of unfinished orders in the pipeline, allowing continued employment even if new contracts are not received.

From $8.4 billion in FFY 2007, real defense contract awards—the value of contracts after accounting for inflation—increased to $11.6 billion in FFY 2016. This represents an annual percentage growth rate of 3.6% per year from FFY 2007 to FFY 2016.

TABLE 36
CONNECTICUT DEFENSE CONTRACT AWARDS AND RELATED EMPLOYMENT

Federal Fiscal Year	Defense Contract Awards ($ 000's)	% Growth	Connecticut Transportation Equipment Employment ($ 000's)	% Growth	Defense Contract Awards in 2006 Dollars ($ 000's)	% Growth
2007	8,616,669	12.4	43.50	(0.4)	8,381,974	9.4
2008	12,225,659	41.9	44.14	1.5	11,447,246	36.6
2009	11,851,941	(3.1)	43.49	(1.5)	11,139,042	(2.7)
2010	11,238,751	(5.2)	42.29	(2.8)	10,387,016	(6.8)
2011	12,491,324	11.1	42.15	(0.3)	11,192,943	7.8
2012	12,750,298	2.1	42.19	0.1	11,194,292	0.0
2013	10,032,845	(21.3)	41.59	(1.4)	8,678,932	(22.5)
2014	13,207,927	31.6	40.30	(3.1)	11,240,789	29.5
2015	12,146,972	(8.0)	40.43	0.3	10,139,376	(9.8)
2016	14,139,317	16.4	41.41	2.4	11,561,175	14.0
Coefficient of Variation	0.134		0.030		0.138	

Sources: U.S. Department of Defense, Bureau of Labor Statistics; Federal Procurement Data System

TABLE 37
COMPARISON OF U.S. AND CONNECTICUT DEFENSE CONTRACT AWARDS

Federal Fiscal Year	Connecticut Defense Contract Awards ($ Millions)	% Growth	3-Year Moving Average ($ Millions)	% Growth	U.S. Defense Contract Awards ($ Millions)	% Growth	3-Year Moving Average ($ Millions)	% Growth
2007	8,617	12.4	8,421	(0.9)	298,893	14.0	266,799	13.1
2008	12,226	41.9	9,502	12.8	354,973	18.8	305,333	14.4
2009	11,852	(3.1)	10,898	14.7	331,120	(6.7)	328,329	7.5
2010	11,239	(5.2)	11,772	8.0	323,100	(2.4)	336,398	2.5
2011	12,491	11.1	11,861	0.8	329,434	2.0	327,885	(2.5)
2012	12,750	2.1	12,160	2.5	319,170	(3.1)	323,901	(1.2)
2013	10,036	(21.3)	11,759	(3.3)	268,753	(15.8)	305,786	(5.6)
2014	13,208	31.6	11,998	2.0	260,613	(3.0)	282,845	(7.5)
2015	12,147	(8.0)	11,797	(1.7)	253,288	(2.8)	260,885	(7.8)
2016	14,139	16.4	13,165	11.6	278,791	10.1	264,231	1.3
Coefficient of Variation	0.118				0.115			

Source: U.S. Department of Defense, Federal Procurement Data System

The coefficient of variation for Connecticut's defense contract awards over the past decade was 0.118, compared to 0.115 for the U.S., reflecting a pattern of fluctuations in the state's annual levels of defense contract awards which is slightly higher than but not inconsistent with that of awards nationally.

As defense contract awards normally take several years to complete, the three-year moving average is a better reflection of actual production activities. Overall defense changes in Connecticut have historically been more severe and more volatile than the national average. Both of these factors have negative implications for the state's economy. Volatility imposes difficulties for the industry in terms of long term planning, making future capital investment less likely and decreasing the dollars devoted to research and development.

Connecticut's total defense awards, based on a three year moving average, increased at an annual percentage growth rate of 5.1% during the nine-year period from 2007 to 2016, compared to a percentage growth rate of -0.1% for the nation.

The relative share of defense related production activity, measured by the size of the moving average of defense contract awards compared to Gross State Product (GSP), was at or below 2.0% in the late 1990s and has generally hovered around 4.0% to 5.0% since then. In comparison, this share was 9.8% in 1982. The following table provides a ten year history of U.S. and Connecticut defense awards and the proportion of state GSP such awards represent.

In FFY 2016, while Connecticut ranked fourth in total defense contracts awarded, it ranked first in per capita defense dollars awarded with a figure of $3,952. This figure was 4.6 times the national average of $863. In 2015, Connecticut ranked fifth in total defense contracts awarded and second in per capita defense dollars awarded with a figure of $3,383. This was 3.5 times the national average of $972 for that year.

The wars in Afghanistan and Iraq and the war on terrorism created a need for replacements for lost equipment and systems, spare parts, and new features on existing systems as new needs were identified in the ever-changing environment. Since the wind down of those wars, recent national defense spending has shown slow but steady declines as less of those services are needed. Connecticut is one of the few states that has seen a rise in recent defense spending due to an increased emphasis on upgrading the United States' submarine fleet.

TABLE 38
CONNECTICUT DEFENSE CONTRACT AWARDS AND GSP

Federal Fiscal Year	Connecticut Defense Contract Awards ($ Millions)	U.S. Defense Contract Awards ($ Millions)	CT as % of U.S.	Cal. Year CT GSP Current Dollars ($ Millions)	3-year Average CT Awards ($ Millions)	CT Awards as % of CT GSP
2007	8,617	298,893	2.9%	233,096	8,421	3.6%
2008	12,226	354,973	3.4%	240,959	9,502	3.9%
2009	11,852	331,120	3.6%	231,310	10,898	4.7%
2010	11,239	323,100	3.5%	234,196	11,772	5.0%
2011	12,491	329,434	3.8%	234,706	11,861	5.1%
2012	12,750	319,170	4.0%	237,795	12,160	5.1%
2013	10,033	268,753	3.7%	240,329	11,758	4.9%
2014	13,208	260,613	5.1%	243,425	11,997	4.9%
2015	12,147	253,288	4.8%	253,685	11,796	4.6%
2016	14,139	278,791	5.1%	261,776	13,165	5.0%

Source: Bureau of Economic Analysis, IHS Economics

Some of the primary defense systems of interest to Connecticut include:

1. CH-53K Heavy Lift Helicopter
2. UH-60 Utility Helicopter (Blackhawk)
3. S-70i Black Hawk Helicopter
4. MH-60R Helicopter (Seahawk)
5. MH-60S Helicopter (Seahawk)
6. C-17 Globemaster Aircraft
7. F-15 Aircraft
8. F-16 Aircraft
9. F-35 Joint Strike Fighter (JSF) Aircraft
10. H-92 Superhawk
11. S-70B Seahawk
12. Virginia Class Submarine

TABLE 39
COMPARISON OF STATE PRIME CONTRACT AWARDS
Federal Fiscal Year 2016

State	Prime Contract Awards ($ 000's)	Rank	$ Per Capita Prime Contract Awards	Rank	State	Prime Contract Awards ($ 000's)	Rank	$ Per Capita Prime Contract Awards	Rank
Connecticut	**14,139,317**	**4**	**3,952**	**1**	Vermont	344,537	42	551	26
Virginia	31,701,029	2	3,771	2	South Carolina	2,487,549	25	502	27
Maryland	12,821,959	6	2,132	3	Nevada	1,465,190	32	500	28
Alabama	8,743,604	13	1,798	4	Indiana	2,916,819	23	440	29
Missouri	10,147,551	8	1,666	5	Illinois	5,411,106	18	423	30
Alaska	1,227,027	33	1,655	6	Wisconsin	2,390,148	27	414	31
Massachusetts	9,379,952	11	1,378	7	Utah	1,099,015	37	361	32
Arizona	9,388,994	10	1,357	8	Iowa	1,113,376	36	355	33
Washington	9,600,769	9	1,320	9	Louisiana	1,530,923	31	327	34
Hawaii	1,852,523	28	1,297	10	Nebraska	607,135	40	319	35
Kentucky	5,752,978	14	1,297	11	Ohio	3,598,310	20	310	36
Maine	1,703,313	29	1,280	12	New York	5,525,015	16	280	37
Mississippi	3,592,991	21	1,202	13	Michigan	2,717,608	24	274	38
Texas	28,287,306	3	1,017	14	Kansas	763,390	38	263	39
Colorado	5,517,944	17	998	15	Tennessee	1,638,278	30	247	40
Georgia	9,183,043	12	892	16	North Dakota	186,758	45	246	41
Pennsylvania	11,333,318	7	886	17	North Carolina	2,445,122	26	241	42
New Hampshire	1,120,303	35	840	18	South Dakota	173,822	47	201	43
California	32,463,283	1	828	19	Montana	166,241	48	160	44
Oklahoma	3,069,757	22	783	20	Wyoming	88,526	50	151	45
Florida	13,819,878	5	672	21	Delaware	142,822	49	150	46
Minnesota	3,693,471	19	670	22	Oregon	606,834	41	149	47
New Jersey	5,605,590	15	627	23	Idaho	197,084	44	117	48
Rhode Island	640,009	39	606	24	West Virginia	180,011	46	98	49
New Mexico	1,169,610	34	562	25	Arkansas	279,248	43	93	50
U.S. Total	278,790,616		863						

Source: Federal Procurement Data System, Bureau of the Census

Retail Trade in Connecticut

Consumer spending on goods and services, ranging from pencils to refrigerators to haircuts to electricity, accounted for approximately 70% of the nation's gross domestic product (GDP) in fiscal 2017. During the last decade, variations in retail trade closely matched variations in GDP growth, making retail trade an important barometer of economic health.

The North American Industry Classification includes establishments that engage in selling merchandise for personal or household consumption and rendering services incidental to the sale of the goods in the retail trade industry. The North American Industry Classification System (NAICS) codes for retail trade are from NAICS 44 to NAICS 45. In general, retail establishments are classified in these codes according to the principal lines of commodities sold (e.g., apparel, groceries) or the usual trade designation (e.g., liquor store, drug store).

The following table shows the major group in each NAICS code as well as the state's retail trade history for the past two fiscal years. Retail sales reflect the pulse of economic conditions: they perform strongly as the economy expands and perform poorly during a recession. Connecticut retail trade in fiscal 2017 totaled $56.0 billion, a 1.2% increase over fiscal year 2016 and the seventh straight year of increased total trade.

TABLE 40
RETAIL TRADE IN CONNECTICUT
(In Millions)

NAICS	Industry	FY 2016	% of Total	FY 2017	% of Total	% Change
441	Motor Vehicle and Parts Dealers	$9,899	17.9%	$10,072	18.0%	1.8
442	Furniture and Home Furnishings Stores	$1,898	3.4	2,009	3.6	5.9
443	Electronics and Appliance Stores	$1,644	3.0	1,657	3.0	0.8
444	Building Material and Garden Supply Stores	$3,035	5.5	3,021	5.4	-0.5
445	Food and Beverage Stores	$10,964	19.8	11,046	19.7	0.7
446	Health and Personal Care Stores	$5,075	9.2	5,275	9.4	3.9
447	Gasoline Stations	$3,196	5.8	3,298	5.9	3.2
448	Clothing and Clothing Accessories Stores	$3,083	5.6	3,036	5.4	-1.5
451	Sporting Goods, Hobby, Book and Music Stores	$1,085	2.0	1,125	2.0	3.7
452	General Merchandise Stores	$5,503	9.9	5,419	9.7	-1.5
453	Miscellaneous Store Retailers	$5,774	10.4	5,978	10.7	3.5
454	Nonstore Retailers	$4,204	7.6	4,096	7.3	-2.6
	Total	$55,359	100.0%	$56,030	100.0%	1.2%
	Durables (NAICS 441,442, 443, 444)	$16,475	29.8%	$16,759	29.9%	1.7%
	Nondurables (All Other NAICS)	$38,884	70.2%	$39,271	70.1%	1.0%

Source: Connecticut Department of Revenue Services

Retail trade can be broken down into two major categories; durable and nondurable goods. Durable goods are items that presumably last three years or more and include items such as automobiles, furniture, and appliances. Durable goods are normally big-ticket items that are sensitive to the overall economic climate. Purchases of such goods increase when interest rates decrease or when consumers' income grows and consumer confidence increases. This was the case in FY 2017 when durable goods sales grew by 1.7%. Nondurable goods have a shorter life span and include items such as food, gas, apparel, and other miscellaneous products. Sales of nondurable goods are typically less volatile as most items are deemed "necessities" and consumption is relatively insensitive to price variations. The previous table shows that Connecticut sales of nondurable goods grew by 1.0% in FY 2017.

In addition to the traditional transactions occurring in Connecticut-based "bricks and mortar" establishments, a significant amount of retail activity is also taking place over the internet. Rulings from the U.S. Supreme Court forbid states from forcing retailers to collect sales tax unless the seller has a physical presence in the state where the purchase is made (nexus). According to the U.S. Department of Commerce, in FY 2017 national retail e-commerce sales are estimated at $419.2 billion, accounting for 8.5% of total retail sales of $4,958.6 billion. Retail transactions through the internet in general have increased much faster than traditional brick and mortar sales. Estimated e-commerce retail sales rose by 15.3% in FY 2017 compared to a 2.8% increase for traditional retail sales. The estimate of e-commerce sales does not include travel agencies, financial services, manufacturers, and wholesalers.

Connecticut has seen an erosion of its tax base due to the internet sales trend. In a study conducted by the University of Tennessee's Center for Business and Economic Research in April 2009, it was estimated that in 2012 Connecticut would lose approximately $63.8 million in state revenue due to e-commerce. Although the Office of Policy and Management believes that the revenue loss is significant, the exact amount is difficult to determine as many retailers that have established internet sales channels have nexus in Connecticut. Moreover, one key online retailer, Amazon, began collecting sales tax in Connecticut on November 1, 2013, after it reached an agreement with the state that involved constructing a $50 million distribution center in Windsor.

Currently, state and local governments as well as the private sector have undertaken a joint effort referred to as the Streamlined Sales Tax Project (SSTP). The project's aim is to fundamentally restructure the national sales tax system by creating a uniform taxable base, thereby simplifying tax administration among the states and eventually allowing for sales tax collection for online sales. The Streamlined Sales and Use Tax Agreement went into effect in October of 2005. As of December 2017, 24 of the 44 states who have authorized participation in SSTP have enacted legislation to fully comply with the agreement to become full-member states, including New Jersey, Rhode Island, and Vermont. Connecticut is currently one of the 44 states referred to as a participant state, as it has not enacted legislation to modify its sales tax.

Retail trade as a percentage of disposable income in Connecticut decreased to 26.3% in FY 2017, from 26.6% in FY 2016. The state's per capita disposable income of $58,825 in FY 2017 was 34.9% above the national average of $43,608. In FY 2017, Connecticut per capita retail trade was estimated at $15,497.

TABLE 41
RETAIL SALES IN CONNECTICUT BY EMPLOYEES AND ESTABLISHMENTS

	Sales ($M)	Number of Employees	Per Employee Sales ($ 000's)	Per Number of Establish.	Employees Per Establish.	Annual Payroll ($M)
2007	52,165.5	196,133	266.0	13,807	14.2	5,160.4
2012	51,632.5	182,528	282.9	12,597	14.5	4,974.5
Growth (%)	(1.0)	(6.9)	6.3	(8.8)	2.0	(3.6)

Source: U.S. Department of Commerce, 2007 and 2012 Economic Census

According to the 2012 economic census on retail sales, a survey that is done once every five years by the U.S. Department of Commerce, Connecticut had $51.6 billion of retail sales, down from $52.2 billion in 2007. Although the retail trade sector is one of the major sources of jobs in the Connecticut economy, the number of establishments and employment within the sector has declined. In 2012, the sector had 12,597 establishments with 182,528 employees, down from 13,807 establishments and 196,133 employees in 2007.

Nonfinancial Debt

For many years, national attention has been focused on the issue of the federal budget and trade deficits, as well as the level of indebtedness of domestic nonfinancial entities. Domestic Nonfinancial Debt (DNFD) is the aggregate net indebtedness of all nonfinancial borrowers in the United States. It includes the borrowings of all levels of government, business and households. It excludes the debt of foreigners and the liabilities of financial intermediaries such as commercial banks, thrift institutions and finance companies.

The following table shows the 27-year history from 1990 to 2016 for total DNFD and each of its four components – households, businesses, federal government, and state and local governments. In 2016, the year-end total domestic nonfinancial debt outstanding was $47,194.1 billion, approximately 2.5 times GDP. Total non-financial debt between 2000 and 2016 has grown 147.7%, outpacing the growth in GDP of 80.5%.

By 2016, of the total $47.2 trillion nonfinancial debt outstanding, the federal government accounted for 33.9%, followed by households at 31.1%, nonfinancial business at 28.5%, and state and local governments at 6.5%. However, debt outstanding in the private sector accounted for 59.6% of the total in 2016, down from 72.2% in 2000. Due to the financial crisis, deficit spending has led the federal government to overtake the household sector in total outstanding nonfinancial debt.

Household Borrowing

Household borrowing, which includes home mortgages, consumer credit, and other miscellaneous items, totaled $14.7 trillion by the end of 2016. Of this sum, home mortgage loans accounted for $9.8 trillion, or 66.8% of household borrowing, followed by consumer credit at $3.6 trillion, or 24.8%, and the remainder in other miscellaneous items.

TABLE 42
DOMESTIC NON-FINANCIAL DEBT (DNFD) OUTSTANDING BY SECTOR IN THE U.S.
In Billions of Dollars at Yearend

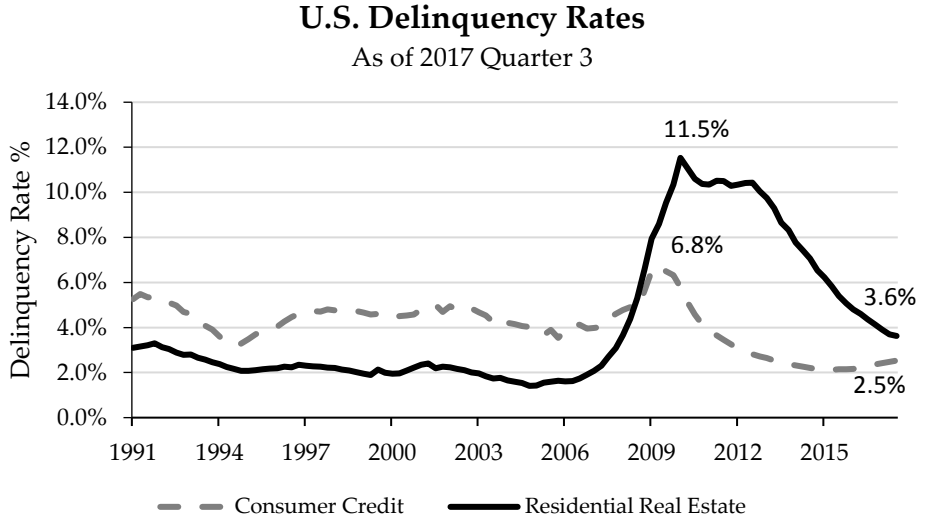
				2016	Growth	
				% of	(1990	(2000
Private Sector	1990	2000	2016	Total	to 2000)	to 2016)
Households						
Home Mortgages	$2,489.3	$4,813.9	$9,796.1	20.8%	93.4%	103.5%
Consumer Credit	824.4	1,741.3	3,645.2	7.7%	111.2%	109.3%
Other	288.6	636.0	1,232.6	2.6%	120.4%	93.8%
Total - Households	$3,602.3	$7,191.1	$14,673.9	31.1%	99.6%	104.1%
Business						
Mortgages	$1,213.0	$1,734.2	$4,084.2	8.7%	43.0%	135.5%
Corporate Bonds	1,008.2	2,276.6	5,072.3	10.7%	125.8%	122.8%
Other	1,554.8	2,565.6	4,278.1	9.1%	65.0%	66.8%
Total - Business	$3,776.0	$6,576.4	$13,434.5	28.5%	74.2%	104.3%
Total - Private Sector	$7,378.2	$13,767.6	$28,108.4	59.6%	86.6%	104.2%
Public Sector						
Federal Government*	$2,830.8	$4,090.0	$16,008.3	33.9%	44.5%	291.4%
State & Local Gov't	987.4	1,197.9	3,077.3	6.5%	21.3%	156.9%
Total - Public Sector	$3,818.2	$5,287.9	$19,085.6	40.4%	38.5%	260.9%
Total DNFD	$11,196.4	$19,055.5	$47,194.1	100.0%	70.2%	147.7%
GDP, 4th Quarter	$6,023.3	$10,472.3	$18,905.5		73.9%	80.5%
DNFD as a % of GDP	185.9%	182.0%	249.6%			

*Excludes intra-governmental holdings of Treasury securities
Source: Board of Governors of the Federal Reserve System, IHS Economics

As shown in the chart below, delinquency rates on all residential real estate loans increased after the onset of the Great Recession as a correction related to sub-prime and Alt-A mortgages (mortgages that are riskier than prime, but less risky than subprime mortgages) engulfed consumers. From an average rate of 2.3% from 1991 to mid-2008, delinquency rates reached a

high of 11.5% in the first quarter of 2010. By the third quarter of 2017, this figure fell to 3.6%. The increase was due to plunging housing prices coupled with reset provisions on certain mortgages and a slowdown in the economy.

Consumer credit, not secured by real estate, is comprised of non-revolving credit (such as automobile and personal loans) and revolving credit (which includes credit card debt and store charges). Over the years, consumer credit has helped finance a large expansion in spending for consumer non-durables as more consumers rely on credit cards for making purchases online. After averaging 4.4% from 1991 to mid-2008, delinquency rates on credit card loans have improved to 2.5% in third quarter 2017 from 6.8% in mid-2009.



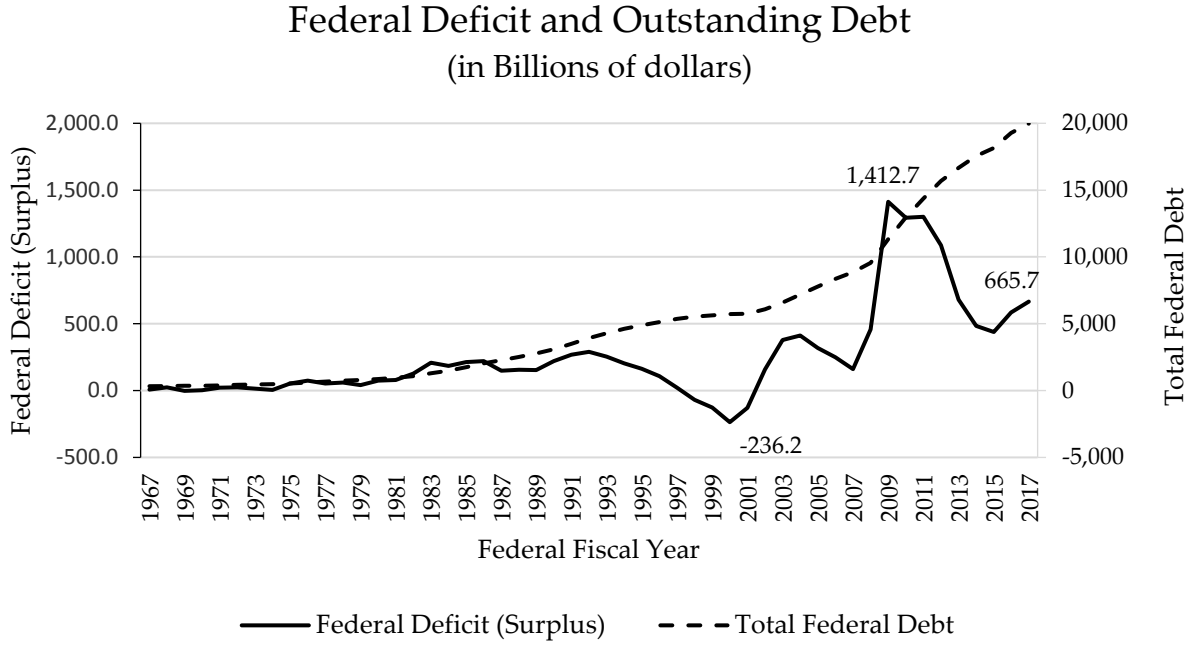
Source: Federal Reserve Bank of St. Louis

Business Borrowing

Business borrowings include debts owed by corporations, nonfarm corporations and farms. Total borrowings were $13.4 trillion at the end of 2016. Borrowing instruments include corporate bonds, commercial paper, municipal securities, bank loans, and mortgages. Mortgages, corporate bonds, and others were divided almost evenly among the total. Prior to the Great Recession, growth in business borrowings were driven by mortgages which grew 109.1% between 2000 to 2007, compared to 12.6% since 2007. After the Great Recession, growth in business borrowings has been led by corporate bonds, which grew 77.4% between 2007 to 2016, compared to 25.6% between 2000 to 2007.

Government Borrowing

The U.S. federal budget has long been operating under deficits. The federal deficit started surging in the early 1980s from expansionary fiscal policy and tax cuts, intending to sacrifice a short-term loss in revenue for a long-term gain through more rapid economic growth. This expectation, however, was not fully realized and deficits persisted into the late 1990s.



Note: For the purposes of the above graph, federal deficits are expressed as positive numbers.
Source: Federal Reserve Board of St. Louis

As shown in the graph above, after registering deficits in most of the 1990s, the federal budget on unified basis, which includes all operating and trust funds such as Social Security and Medicare programs, turned to a surplus in 1998 and peaked at $236.2 billion in federal fiscal year (FFY) 2000. Federal operations turned to deficits again in FFY 2002 reaching a high of $412.7 billion in FFY 2004 before slightly recovering. The onset of the Great Recession boosted federal spending for FFY 2009 through FFY 2012. Contributing factors included the $700 billion financial bailout known as the Troubled Asset Relief Program (TARP), and the $787 billion economic stimulus program, per the American Recovery and Reinvestment Act (ARRA), along with increases in Medicare, Medicaid, unemployment insurance, Social Security, and defense spending. At the same time, tax receipts declined due to the effects of the recession and tax cuts from the ARRA program. The federal deficit reached a high of $1,412.7 billion in FFY 2009 before dropping dramatically in FFY 15 to $438.4 billion. The federal deficit stands at $665.7 billion as

of FFY 2017. The federal government in FFY 2017 spent an estimated $1.18 for every dollar it took in, a decrease from the recent high of $1.63 in FFY 2010.

As the federal operating budget continued to post a deficit, the national debt also increased. By the end of FFY 2017, gross debt outstanding registered $20.0 trillion, up 3.6% from FFY 2016, however that was one of the lowest rates of increase since FFY 2001. The U.S.'s deficit of 9.8% of GDP in FFY 2009 was a record high since WWII, but has since declined to 3.5% in FFY 2017.

According to the U.S. Census Bureau's "State Government Finances," state government debt outstanding in Connecticut at the end of fiscal 2015, the latest available year, was $35.4 billion, compared to $33.2 billion in 2014 and $32.4 billion in 2013. Connecticut per capita state government debt has increased over the past three years, from $8,998 in fiscal 2013 to $9,862 in fiscal 2015. The fifty state average has decreased over the past three years from $3,599 in fiscal 2013 to $3,583 in fiscal 2015, though there was a slight increase in fiscal 2014 to $3,606.

Connecticut's overall credit rating is determined by four major rating agencies: Moody's Investors Service, Standard & Poor's Corporation, Fitch Investors Service, Inc., and Kroll Bond Ratings. As of the end of December 2017, Connecticut's General Obligation bonds are rated A1 by Moody's with a "stable" credit outlook and AA- by Kroll Bond Ratings with a "negative" credit outlook. Connecticut is rated A+ by Standard & Poor's Corporation and Fitch Investors Service with a "negative" and "stable" outlook, respectively. The rating process provides information for investors about risk. High ratings generally result in lower borrowing costs.

Savings by U.S. Households

The chart below shows the national savings rate (income after subtracting consumption costs and expenditures) for U.S. consumers from 1959 through November 2017. After remaining at an average of 11.4% between 1959 and 1980, the U.S. savings rate began trending down from a high of 12.7% in late 1981 to a low of 1.9% in mid-2005. The savings rate then climbed back up to 11.0% by December 2012 before falling to the current level of 2.9% in November 2017. The average savings rate for the past 5 years is 5.2%.

Source: U.S. Bureau of Economic Analysis, Federal Reserve Bank of St. Louis

Household Balance Sheet

The Federal Reserve Bank's "Flow of Funds Accounts" maintains statistics on the assets, liabilities, and net worth for the household sector. The table below shows these three components that comprise a balance sheet for 1970, 2007, and 2017, to evaluate the financial position of the nation's households.

TABLE 43
Balance Sheet of Households and Non-profit Organizations
In Billions of Dollars

	1970 In Real $*	% of Total	2007 In Real $*	% of Total	2017 Q3	% of Total	Average Growth**
Assets							
Real Estate	6,251.2	23.8%	26,575.1	28.7%	26,475.2	24.4%	3.0%
Stock Related	8,162.7	31.0%	33,729.5	36.5%	46,788.3	43.1%	3.6%
Other	11,895.8	45.2%	32,137.2	34.8%	35,192.1	32.4%	2.2%
Time & Saving Deposits	3,305.4	12.6%	8,630.7	9.3%	10,897.2	10.0%	2.5%
Corporate Bonds	181.3	0.7%	1,367.9	1.5%	559.5	0.5%	2.3%
Gov't Securities***	891.0	3.4%	3,081.1	3.3%	3,235.3	3.0%	2.7%
Total	26,309.8	100.0%	92,441.9	100.0%	108,455.6	100.0%	2.9%
Liabilities							
Home Mortgages	1,744.0	59.7%	12,157.7	73.7%	9,664.3	64.9%	3.6%
Consumer Credit	815.0	27.9%	2,982.3	18.1%	3,637.7	24.4%	3.1%
Other	360.2	12.3%	1,359.1	8.2%	1,583.0	10.6%	3.1%
Total	2,919.2	100.0%	16,499.1	100.0%	14,885.0	100.0%	3.4%
Net Worth	23,390.7		75,942.8		93,570.6		2.9%
Net Home Equity	4,507.3		14,417.4		16,810.9		2.7%
As a % of Net Worth	19.3%		19.0%		18.0%		
Per Capita Net Worth ($)	113,350.7		250,363.2		286,836.4		1.9%
As a % of Total Assets							
Home Mortgages	6.6%		13.2%		8.9%		
Liabilities	11.1%		17.8%		13.7%		
Net worth	88.9%		82.2%		86.3%		

Note:
* Real dollar is calculated by using the estimated CPI-U for 2015
** Compound annual growth rate from 1970 – 2017 Q3
*** Includes Treasury and Municipal securities

Source: Board of Governors of the Federal Reserve System

Assets

Total assets can be categorized into three components: real estate assets, stock related assets, and other assets (including bank deposits, bonds, money market fund shares, and consumer durable goods). In the third quarter of 2017, household assets totaled $108.5 trillion with real estate comprising 24.4% of total assets, stocks 43.1%, and the remaining 32.4% in other assets. In 1970, real estate comprised 23.8% of total assets, stocks 31.0%, and all other assets 45.2%. This reflects that stock related assets rose in importance over the past four and a half decades relative to real estate and other assets.

From 1955 to 1970, total assets grew at a compound annual growth rate of 3.7%. Total asset growth then slowed slightly in 1970 with a compound annual growth rate of 3.5% through 2007 when real assets reached a peak of $92.4 trillion just prior to the onset of the Great Recession. During that recession total real assets declined sharply falling to $76.3 trillion before recovering to $108.5 trillion by 2017 Q3.

Liabilities

Household liabilities totaled $14.9 trillion in the third quarter of 2017. Home mortgages accounted for 64.9% of the total with consumer credit at 24.4% and other liabilities at 10.6%. This compared to 59.7%, 27.9%, and 12.3%, respectively, in 1970, reflecting a much faster growth in home mortgage borrowings. From 1970 to 2007 total liabilities grew at a compound annual growth rate of 4.8%, as financial vehicles such as home equity loans and credit cards became popular. Between the first quarter of 2002 and the fourth quarter of 2007, quarterly growth in home mortgages, supported by extraordinarily favorable mortgage rates and an aggressive mortgage lending strategy, averaged 2.9%, outpacing growth in consumer credit (1.4%) and total liabilities (2.5%). Consumer credit primarily includes auto loans, personal loans, and credit card balances. Since the Great Recession growth in liabilities slowed to 3.4%.

Net Worth

Net worth (assets less liabilities) measures the resulting financial condition of consumers, which affects the overall economy through its wealth impact on consumers' spending and business activities. Net worth totaled $93.6 trillion in the third quarter of 2017. When measured in 2015 dollars, real net worth grew from $23.4 trillion in 1970 to a pre-recession peak of $75.9 trillion in 2007, before declining to $61.9 trillion in 2008. Per capita real net worth increased from $113,351 in 1970 to $286,836 in 2017, with an annual growth rate of 1.9%.

Along with the increase in net worth has come the additional burden of greater liabilities. In 1970 liabilities accounted for 11.1% of total assets, yet by 2017 they had risen to 13.7% of assets. The primary driver of this change was an increase in home mortgage liability. Indeed, the ratio of home mortgages to total assets grew from 6.6% in 1970, to 13.2% in 2007, before falling to 8.9% in

2017. The increasing use of debt to finance American lifestyles has also increased the proportion of income that must be devoted to repaying that debt. Debt service, which consists of the required payments on outstanding mortgage and consumer debt, as a percentage of disposable personal income has gradually risen from 10.6% in 1980, the earliest available data, to 13.2% in the fourth quarter of 2007. Debt service has since declined to 9.9% as of second quarter 2017, a result of lower interest rates due to the onset of the Great Recession and the expansionary monetary policy implemented by the Federal Reserve.

PERFORMANCE INDICATORS

This section examines trends in various economic performance indicators for the United States, the New England region and Connecticut. Statistics are provided demonstrating the economic performance of these areas and showing their strengths and weaknesses.

Gross Product

Gross Domestic Product (GDP) is a measure of domestic production produced by the Bureau of Economic Analysis (BEA). GDP is "the market value of the final goods and services produced by labor and property in the United States." GDP is comprised of:

- personal consumption expenditures;
- government consumption expenditures and gross investment;
- gross private domestic investment; and
- net exports of goods and services.

While GDP measures economic activity in a geographical area, Gross National Product (GNP) measures the economic activity produced by residents of that area. Unlike Gross Domestic Product, GNP adjusts for income derived from domestic investments in foreign companies and foreign investments in domestic companies. GDP measures all economic activity within a territory and is consistent with other economic indicators such as employment and shipments of manufactured goods.

Because prices of goods and services change over time, nominal GDP will change even if there is no difference in physical output. To measure changes in real output, GDP is adjusted by an index of the general price level and expressed in constant dollars. The Bureau of Economic Analysis uses a chained dollars inflation index to provide an "apples-to-apples" comparison between years, currently based on calendar year 2009.

A state's economic activity is measured using Gross State Product (GSP). Like GDP, GSP is the current market value of all final goods and services produced by labor and property in a state. In FY 2017, the State of Connecticut produced an estimated $259.8 billion in goods and services - $225.7 billion in calendar year 2009 dollars. This was an estimated increase of 0.7% in current dollars and a decline of 0.9% in real dollars over FY 2016. Overall growth in Connecticut GSP lagged both the region and the nation. Since FY 2009, the nadir of the most recent recession, nominal gross product has increased 11.7% in Connecticut, 25.4% in New England and 30.7% in the nation through FY 2017. In real terms, Connecticut's GSP was 3.7% below its FY 2009 level in FY 2017, as growth in the state has been insufficient to keep up with inflation. The following table provides data on the recent ten year history of gross state product for the three regions.

TABLE 44
GROSS PRODUCT

A. Millions of Current Dollars

Fiscal	United States*		New England *		Connecticut	
Year	Dollars	% Growth	Dollars	% Growth	Dollars	% Growth
2008	14,595,284	3.7	809,856	3.6	240,781	5.2
2009	14,433,783	(1.1)	800,340	(1.2)	232,637	(3.4)
2010	14,528,645	0.7	814,885	1.8	233,627	0.4
2011	15,138,306	4.2	838,141	2.9	235,010	0.6
2012	15,753,569	4.1	860,109	2.6	236,464	0.6
2013	16,271,154	3.3	876,456	1.9	239,727	1.4
2014	16,910,141	3.9	897,238	2.4	242,690	1.2
2015	17,717,091	4.8	941,562	4.9	250,700	3.3
2016	18,231,469	2.9	978,154	3.9	258,071	2.9
2017	18,871,627	3.5	1,003,986	2.6	259,801	0.7
% Increase ('09 to '17)		30.7		25.4		11.7

B. Constant Dollars**

Fiscal	United States*		New England *		Connecticut	
Year	Dollars	% Growth	Dollars	% Growth	Dollars	% Growth
2008	14,849,885	1.2	836,000	1.8	249,601	3.2
2009	14,440,790	(2.8)	805,758	(3.6)	234,350	(6.1)
2010	14,444,756	0.0	812,406	0.8	232,857	(0.6)
2011	14,744,214	2.1	825,758	1.6	231,296	(0.7)
2012	15,011,771	1.8	831,619	0.7	227,987	(1.4)
2013	15,196,908	1.2	829,555	(0.2)	226,115	(0.8)
2014	15,497,919	2.0	831,964	0.3	224,008	(0.9)
2015	15,988,799	3.2	852,867	2.5	225,974	0.9
2016	16,249,020	1.6	866,537	1.6	227,735	0.8
2017	16,543,375	1.8	874,746	0.9	225,695	(0.9)
% Increase ('09 to '17)		14.6		8.6		(3.7)

* Sum of States' Gross State Products.

** Reported in calendar year 2009 chained dollars

Source: Bureau of Economic Analysis

As growth in some sectors in the economy will outpace other sectors, the composition of gross product will change over time. This is true of both the nation as well as Connecticut. Between FY

2009 and FY 2017, the contribution to Connecticut's GSP from transportation, trade and utilities; professional and business services; and healthcare and education increased, while manufacturing and FIRE (Finance, Insurance, and Real Estate) fell. The FIRE and manufacturing sectors have historically played an outsized role in Connecticut's economy. However, in FY 2017, professional and business services and transportation, trade, and utilities exceeded the manufacturing sector's contribution to Connecticut's GSP. Manufacturing's contribution to national gross domestic product also decreased between FY 2009 and FY 2017. Connecticut GSP as a portion of national GDP decreased between FY 2009 and FY 2017, from 1.6 to 1.4 percent.

TABLE 45
GROSS PRODUCT BY SOURCE
(In Billions of Current Dollars)

	FY 2009				FY 2017			
Industry	U.S.	%	CT	%	U.S.	%	CT	%
Agriculture, Forest & Fisheries	139.2	1.0	0.31	0.1	175.3	0.9	0.26	0.1
Construction & Mining	964.1	6.7	7.53	3.2	1,105.0	5.9	8.57	3.3
Manufacturing	1,755.0	12.2	30.07	12.9	2,201.7	11.7	28.46	11.0
Transportation, Trade & Utilities	2,359.8	16.3	32.79	14.1	3,103.1	16.4	39.93	15.4
Information	713.7	4.9	10.03	4.3	914.5	4.8	12.86	5.0
Finance, Insurance & Real Estate	2,794.9	19.4	69.10	29.7	3,978.1	21.1	70.55	27.2
Professional & Business Services	1,718.2	11.9	26.30	11.3	2,296.7	12.2	31.16	12.0
Health Care & Education	1,185.2	8.2	21.73	9.3	1,587.6	8.4	26.62	10.2
Leisure & Hospitality	528.5	3.7	6.40	2.8	768.6	4.1	8.41	3.2
Other Services	331.3	2.3	4.50	1.9	423.4	2.2	5.29	2.0
Government	1,944.0	13.5	23.88	10.3	2,317.7	12.3	27.69	10.7
Total	14,433.8	100.0	232.64	100.0	18,871.6	100.0	259.80	100.0
Broadly Defined Services*		50.4		59.3		52.8		59.6
CT as a % of U.S. Total GSP			1.61				1.38	

Source: Bureau of Economic Analysis

Broadly defined services in the private sector, which include information, professional and technical services, health care and education, FIRE, leisure and hospitality, and other services, increased only slightly to 59.6 of total GSP in FY 2017, up from from 59.3% in FY 2009. During this period, the contribution to GDP from services for the nation also increased to 52.8% of GDP in FY 2017 from 50.4% in FY 2009. Theoretically, Connecticut and the nation's increasingly service-based economies should smooth the business cycle, resulting in longer and shallower recessions and expansions. Activities in service sectors are less susceptible to pent-up demand, less subject to inventory-induced swings, less intensive in capital requirements, and somewhat

less vulnerable to foreign competition than the manufacturing sector. Connecticut began moving toward services sooner than the nation as a whole.

Productivity

Gains in gross product may or may not fully reflect a change in the livelihoods of a territory's residents. While gross product may rise, population growth may consume those gains. Therefore, real per capita gross product, which takes into account both increases in population and inflation, provides a better measure of the standard of living and among differing economies and the productivity of their residents. The following table shows real per capita gross product, in chained 2009 dollars, for the United States, New England, and Connecticut. In FY 2017, Connecticut's productivity as measured by GSP per capita was 24.0% higher than the United States as a whole. This level was significantly below where it was prior to the recession; Connecticut was 44.2% higher than the nation as a whole in FY 2008.

TABLE 46
REAL PER CAPITA GROSS PRODUCT
(In Chained 2009 Dollars)

	United States		New England		Connecticut		
	Real GSP	%	Real GSP	%	Real GSP	%	As a %
Fiscal Year	Per Capita	Change	Per Capita	Change	Per Capita	Change	of the U.S.
2008	$48,908.2	0.2	$58,391.0	1.4	$70,534.4	2.8	144.2
2009	$47,148.9	(3.6)	$56,034.1	(4.0)	$65,907.9	(6.6)	139.8
2010	$46,769.7	(0.8)	$56,257.1	0.4	$65,180.8	(1.1)	139.4
2011	$47,369.6	1.3	$56,926.0	1.2	$64,497.0	(1.0)	136.2
2012	$47,879.1	1.1	$57,112.1	0.3	$63,464.8	(1.6)	132.6
2013	$48,130.5	0.5	$56,761.8	(0.6)	$62,893.9	(0.9)	130.7
2014	$48,734.4	1.3	$56,732.3	(0.1)	$62,338.4	(0.9)	127.9
2015	$49,913.5	2.4	$58,018.5	2.3	$62,990.8	1.0	126.2
2016	$50,375.3	0.9	$58,843.9	1.4	$63,621.0	1.0	126.3
2017	$50,937.8	1.1	$59,293.7	0.8	$63,179.4	(0.7)	124.0

Source: Bureau of Economic Analysis

Total Personal Income

Total personal income, defined as current income received by persons from all sources including public and private transfer payments but excluding transfers among persons, is a reliable measure of economic performance. Total personal income captures the manufacturing sector through manufacturing wages; the nonmanufacturing sector through wages in such areas as government, wholesale/retail trade, utilities, transportation, mining, personal services; the private sector through proprietors' income; and a part of agricultural activity via farm properties' income. Personal income is approximately 85% of Gross Domestic Product; hence, the two are well correlated.

The U.S. Department of Commerce defines the various sources of personal income as the following:

Wages and Salaries - the monetary remuneration of employees, including the compensation of corporate officers; commissions, tips and bonuses; and receipts in kind that represent income to the recipient. Wages and salaries are measured before deductions such as social security contributions and union dues.

Other Labor Income - consists primarily of employer contributions for employee pension and insurance funds and employer contributions for government social insurance.

Property Income - income from dividends, interest and rents.

Dividends are payments in cash or other assets, excluding stock, by corporations organized for profit, to non-corporate stockholders who are U.S. residents.

Interest is the monetary and imputed interest income of persons from all sources. Imputed interest represents the excess of income received by financial intermediaries from funds entrusted to them by persons, over income disbursed by these intermediaries to persons. Part of imputed interest reflects the value of financial services rendered without charge to persons by depository institutions. The remainder is property income held by life insurance companies and private non-insured pension funds on behalf of persons; one example is the additions to policyholder reserves held by life insurance companies.

Rental income is the monetary income of persons (except those primarily engaged in the real estate business) from the rental of real property (including mobile homes); the imputed net rental income of owner-occupants of nonfarm dwellings; and the royalties received by persons from patents, copyrights, and rights to natural resources.

Proprietors' Income - the income, including income-in-kind, of sole proprietorships and partnerships and of tax-exempt cooperatives. The imputed net rental income of owner occupants of farm dwellings with certain adjustments is included.

Transfer Payments - income payments to persons, generally in monetary form, for which they do not render current services. These include payments by the government and business to individuals and nonprofit institutions.

Personal Contributions to Social Insurance - contributions made by individuals under the various social insurance programs. Payments by employees and the self-employed (farm and nonfarm) are included as well as contributions that are sometimes made by employers on behalf of their employees (i.e., those customarily paid by the employee but, under special arrangement, paid by the employer).

The correlation between Gross Domestic Product and personal income provides another basis of comparison among individual states. A comparison of growth rates in personal income is a good indicator of a state's present and potential future performance.

According to figures provided by the U.S. Bureau of Economic Analysis, personal income for Connecticut residents during fiscal year 2017 was $249.0 billion, a 0.8% increase over fiscal year 2016. Total personal income in Connecticut increased 17.5% from fiscal 2008 to 2017. For the United States, total personal income increased 31.1%, and in the New England region, the increase for the same period was 26.4%.

The following table shows personal income for the United States, the New England region, and Connecticut.

TABLE 47
PERSONAL INCOME
(In Millions)

Fiscal	United States		New England		Connecticut	
Year	Dollars	% Growth	Dollars	% Growth	Dollars	% Growth
2008	12,329,751	5.37	722,593	5.39	211,980	7.22
2009	12,275,261	(0.44)	728,826	0.86	214,910	1.38
2010	12,211,959	(0.52)	738,767	1.36	218,633	1.73
2011	12,883,176	5.50	771,161	4.38	226,363	3.54
2012	13,555,540	5.22	796,730	3.32	230,649	1.89
2013	14,026,339	3.47	813,729	2.13	232,705	0.89
2014	14,393,181	2.62	825,066	1.39	234,258	0.67
2015	15,222,685	5.76	865,603	4.91	242,446	3.50
2016	15,763,974	3.56	895,774	3.49	247,101	1.92
2017	16,159,633	2.51	913,086	1.93	248,991	0.76

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Connecticut's sources of personal income vary slightly from those of the United States, with wages and employee salaries accounting for approximately 45.2% of total personal income compared to 50.8% for the nation in fiscal year 2017. The following table shows the sources of personal income for the United States and Connecticut over a ten fiscal year period. The table indicates a shift from manufacturing wages to other sources of income including property income and transfer payments.

TABLE 48
SOURCES OF PERSONAL INCOME
(In Billions of Dollars)

	Fiscal Year 2008				Fiscal Year 2017			
	U.S.	%	CT	%	U.S.	%	CT	%
Manufacturing Salaries & Wages	749.0	6.1	14.5	6.8	822.5	5.1	14.1	5.7
Nonmanufacturing Salaries & Wages	5,734.1	46.5	95.4	45.0	7,380.8	45.7	112.0	45.0
Proprietors Income	1,003.8	8.1	24.4	11.5	1,364.9	8.4	25.6	10.3
Property Income	2,427.2	19.7	45.3	21.4	3,129.4	19.4	54.7	22.0
Other Labor Income	1,529.3	12.4	24.5	11.5	1,923.1	11.9	28.2	11.3
Transfer Payments Less Payments to Social Insurance	886.5	7.2	7.9	3.7	1,539.0	9.5	14.4	5.8
Total	12,329.8	100.0	212.0	100.0	16,159.6	100.0	249.0	100.0

Note: Totals may not agree with detail due to rounding.
Source: U.S. Department of Commerce, Bureau of Economic Analysis

Per Capita Personal Income

One of the more important single indicators of a state's performance is the growth in per capita personal income. Per capita income is total personal income divided by the population. On a per capita basis, personal income growth in Connecticut increased 15.8% from fiscal year 2008 to 2017, compared to a national increase of 22.5% and a New England region increase of 22.3%.

Per capita personal income in Connecticut, for the most recent fiscal year, was 12.4% higher than for the New England region and 39.5% higher than for the United States. Connecticut's per capita personal income continues to be at a higher level than that of the nation and New England due to the concentration of relatively high paying manufacturing industries, major corporate headquarters within the state, and the financial services sector.

The following table shows the growth in per capita personal income for ten fiscal years for the United States, the New England region and Connecticut.

TABLE 49
PER CAPITA PERSONAL INCOME

Fiscal	United States		New England		Connecticut	
Year	Dollars	% Growth	Dollars	% Growth	Dollars	% Growth
2008	40,608	4.38	50,470	5.01	59,903	6.76
2009	40,079	(1.30)	50,684	0.42	60,441	0.90
2010	39,540	(1.34)	51,159	0.94	61,198	1.25
2011	41,391	4.68	53,161	3.91	63,098	3.10
2012	43,235	4.46	54,706	2.91	64,149	1.67
2013	44,423	2.75	55,654	1.73	64,628	0.75
2014	45,260	1.88	56,218	1.01	65,053	0.66
2015	47,522	5.00	58,825	4.64	67,417	3.63
2016	48,872	2.84	60,748	3.27	68,830	2.10
2017	49,756	1.81	61,735	1.63	69,396	0.82

Source: U.S. Department of Commerce, Bureau of Economic Analysis

The following table shows per capita income for each of the fifty states with their corresponding ranking for fiscal year 2017. In 2017, Connecticut ranked number one in the nation based on per capita personal income. Connecticut's figure of $69,396 for per capita personal income is approximately 39.5% higher than the national average.

TABLE 50
PER CAPITA PERSONAL INCOME BY STATE
(Fiscal 2017)

State	Per Capita Income	Rank	State	Per Capita Income	Rank
Connecticut	**$69,396**	**1**	Florida	$46,263	26
Massachusetts	64,836	2	Iowa	46,021	27
New Jersey	61,755	3	Oregon	45,785	28
New York	59,937	4	Ohio	44,981	29
Maryland	58,760	5	Michigan	44,751	30
California	57,222	6	Maine	44,454	31
New Hampshire	56,520	7	Nevada	43,941	32
Wyoming	55,700	8	Tennessee	43,790	33
Alaska	55,683	9	Indiana	43,669	34
Washington	55,302	10	Montana	43,477	35
North Dakota	54,824	11	Missouri	43,208	36
Virginia	53,495	12	Oklahoma	42,853	37
Minnesota	52,617	13	Louisiana	42,794	38
Colorado	52,592	14	North Carolina	42,700	39
Illinois	52,127	15	Georgia	42,619	40
Pennsylvania	51,377	16	Utah	41,374	41
Hawaii	51,072	17	Arizona	40,914	42
Rhode Island	50,711	18	Arkansas	40,234	43
Vermont	50,500	19	South Carolina	39,946	44
Nebraska	50,126	20	Idaho	39,864	45
Delaware	48,294	21	Alabama	39,376	46
South Dakota	48,052	22	Kentucky	39,166	47
Kansas	47,356	23	New Mexico	38,621	48
Wisconsin	47,185	24	West Virginia	37,185	49
Texas	46,365	25	Mississippi	35,894	50
U.S. Average	$49,756				

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Inflation and Its Effect On Personal Income

Inflation is defined as a rise in the general price level (or average level of prices) of all goods and services, or equivalently a decline in the purchasing power of a unit of money. The general price level varies inversely with the purchasing power of a unit of money. Hence, when prices increase purchasing power declines.

To take into account the erosion of purchasing power due to increasing prices, income is deflated by a consumer price index. The Consumer Price Index (CPI) is a measure of the average change in prices over time for a fixed market basket of goods and services. The Bureau of Labor Statistics publishes CPI's for two population groups: a CPI for All Urban Consumers (CPI-U) which covers approximately 80 percent of the total population; and a CPI for Urban Wage Earners and Clerical Workers (CPI-W) which covers 32 percent of the total population and is a subset of the CPI-U population. The CPI-U includes, in addition to wage earners and clerical workers, groups such as professional, managerial and technical workers, the self employed, short-term workers, the unemployed, retirees and others not in the labor force.

The following table shows the Consumer Price Index for All Urban Consumers and its growth over a ten fiscal year period.

TABLE 51
THE U.S. CONSUMER PRICE INDEX
(1982-84=100)

Fiscal Year	CPI	% Growth
2008	211.7	3.71
2009	214.6	1.40
2010	216.8	0.98
2011	221.1	1.98
2012	227.6	2.94
2013	231.4	1.68
2014	235.0	1.55
2015	236.7	0.72
2016	238.3	0.67
2017	242.7	1.86

Source: U.S. Bureau of Labor Statistics

The CPI is a weighted index that is based on prices of food (13.6%), apparel (3.0%), housing (33.9%), transportation (15.6%), medical care (8.5%), education (6.1%), and the other goods that people buy for day-to-day living (19.3%). In addition, all taxes directly associated with the purchase and use of items and services are included in the index. In calculating the index, price

changes for the various items in 85 urban areas across the country are averaged together with weights which represent their importance in the spending of the appropriate population group. Local data is then combined to obtain a U.S. city average. Movements of the indexes from one month to another are usually expressed as percentage changes rather than changes in index points, because index point changes are affected by the level of the index in relation to its base period while percentage changes are not.

Real Personal Income

Real personal income is total personal income deflated by the Consumer Price Index, a measure of personal income that usually includes adjustments for changes in prices. The following table shows real personal income growth for the United States, the New England region and Connecticut since the base period of 1982-84. These figures, because they take into account the effects of inflation, provide a better perspective on overall gains in personal income.

TABLE 52
REAL PERSONAL INCOME
(In Millions)

Fiscal	United States		New England		Connecticut	
Year	Dollars	% Growth	Dollars	% Growth	Dollars	% Growth
2008	5,824,602	1.60	341,354	1.62	100,140	3.39
2009	5,718,771	(1.82)	339,544	(0.53)	100,122	(0.02)
2010	5,633,827	(1.49)	340,820	0.38	100,863	0.74
2011	5,827,874	3.44	348,845	2.35	102,399	1.52
2012	5,957,078	2.22	350,129	0.37	101,360	(1.01)
2013	6,061,923	1.76	351,678	0.44	100,571	(0.78)
2014	6,125,251	1.04	351,120	(0.16)	99,692	(0.87)
2015	6,432,161	5.01	365,750	4.17	102,443	2.76
2016	6,616,455	2.87	375,974	2.80	103,713	1.24
2017	6,658,808	0.64	376,250	0.07	102,600	(1.07)

Source: U.S. Department of Commerce, Bureau of Economic Analysis, IHS Economics

It is important to note that there are regional differences in prices. Local area CPI indexes are by-products of the national CPI program. Because each local index is a small subset of the national index, it has a smaller sample size and is therefore subject to substantially more sampling and other measurement error than the national index. Therefore, local area indexes show greater volatility than the national index in the short run, although their long-term trends are quite similar. Therefore, the national Consumer Price Index was utilized in the table above to provide the comparison among the United States, the New England region and Connecticut.

Real Per Capita Personal Income

Real per capita personal income is per capita personal income deflated by the Consumer Price Index and shows how individuals in a geographical entity have fared after adjusting for the effects of inflation. A comparison of the growth rates measures the relative economic performance of each entity as it adjusts personal income growth by population changes.

TABLE 53
REAL PER CAPITA PERSONAL INCOME

Fiscal	United States		New England		Connecticut	
Year	Dollars	% Growth	Dollars	% Growth	Dollars	% Growth
2008	19,183	0.65	23,842	1.26	28,298	2.95
2009	18,672	(2.67)	23,613	(0.96)	28,158	(0.50)
2010	18,241	(2.30)	23,601	(0.05)	28,233	0.27
2011	18,724	2.64	24,048	1.89	28,543	1.10
2012	19,000	1.47	24,041	(0.03)	28,191	(1.23)
2013	19,199	1.05	24,053	0.05	27,931	(0.92)
2014	19,261	0.33	23,924	(0.53)	27,684	(0.88)
2015	20,080	4.25	24,856	3.89	28,486	2.90
2016	20,512	2.15	25,497	2.58	28,889	1.42
2017	20,503	(0.05)	25,439	(0.23)	28,595	(1.02)

Source: IHS Economics, Bureau of Economic Analysis

All figures derived by: $\frac{\text{Total Real Personal Income}}{\text{Population}}$

The previous table shows the growth in real per capita personal income for the United States, the New England region, and Connecticut.

TABLE 54
GROWTH IN REAL PER CAPITA PERSONAL INCOME
(Base Year: 1982-1984)

Fiscal	% Growth		% Cumulative Growth	
Year	United States	Connecticut	United States	Connecticut
1950-1960	31.0%	29.9%	31.0%	29.9%
1960-1970	38.1%	40.1%	80.9%	82.1%
1970-1980	15.0%	11.8%	108.0%	103.6%
1980-1990	21.1%	38.2%	151.9%	181.3%
1990-2000	15.7%	19.0%	191.4%	234.7%
2000-2010	4.6%	15.1%	204.9%	285.2%
2010-2017	12.4%	1.3%	242.7%	290.1%

Source: U.S. Department of Commerce, Bureau of Economic Analysis

The above table highlights the cumulative growth in real per capita personal income over the past sixty-six years. Overall, Connecticut has higher cumulative growth in real per capita personal income during this sixty-six year period, exceeding the United States by 47.4 percentage points. However, since the global financial crisis in 2008, Connecticut's real person income growth has been weak. Over the most current decade, Connecticut's real personal income growth has lagged behind the United States at only 1.3%. Even though job growth in the state has lagged that of the nation, Connecticut residents' income growth has out-performed that of the nation's over the long-term, but the gap between Connecticut and the nation is narrowing.

Cost of Living Index

Statistics regarding inflation and the cost of living for Connecticut are frequently requested by the public. The two indicators are not the same. An inflation index such as the CPI-U is used to measure purchasing power relative to its historical performance, while the cost of living index is used to measure purchasing power relative to one's geographical peers. In other words, the cost of living index is produced to measure the price level of consumer goods and services for a specific area relative to other jurisdictions at a given time.

A widely used index to measure cost of living differences among urban areas is *ACCRA Cost of Living Index,* which is produced by The Council for Community and Economic Research (C2ER). This report includes indices for approximately 320 Metropolitan Statistical Areas (MSAs), Metropolitan Statistical Divisions, and Micropolitan Statistical Areas as defined by the U.S. Office of Management and Budget. In Connecticut, the C2ER survey includes the three urban areas from the following MSAs: Stamford in the Bridgeport-Stamford-Norwalk MSA, Hartford in the Hartford-West Hartford-East Hartford MSA, and New Haven in the New Haven-Milford MSA.

TABLE 55
COMPARISON OF COST OF LIVING

2017 Third Quarter Data MTA/MTD	Composite Index	Grocery Items	Housing	Utilities	Trans-portation	Health Care	Misc.*
Hartford, CT	115.4	103.3	129.7	93.9	110.8	112.4	116.7
Boston, MA	145.7	105.8	204.9	139.9	111.4	133.3	127.0
New York**, NY	242.9	141.4	516.8	118.1	128.5	116.7	148.4
Index Weights	100%	13.61%	27.59%	10.06%	9.59%	4.00%	35.15%

Note: * Denotes miscellaneous goods and services
** Manhattan

Source: The Council for Community and Economic Research (C2ER), *"ACCRA Cost of Living Index"*, Data for Third Quarter 2017

The prior table shows the cost of living comparison for three neighboring cities: Boston in the Boston-Quincy MTD, Hartford in the Hartford-West Hartford-East Hartford MTA, and New York (Manhattan) in the New York-White Plains-Wayne NY-NJ MTD based on 2017 third quarter data.

The Cost of Living Composite Index is weighted by a "market basket" of approximately 60 goods and services for the typical professional and executive household. It is further broken down into six categories including grocery items, housing, utilities, transportation, health care, and miscellaneous goods and services to reflect the different categories of consumer expenditures. The index for the Hartford area, for example, was 115.4 in the third quarter of 2017. Compared to the national index of 100, this shows that the overall living cost in the Hartford area was higher than the national average by 15.4% in the third quarter of 2017. Among the six categories, the cost of housing in the Hartford area was the most expensive item at 29.7% higher than the national average, followed by miscellaneous items at 16.7%, healthcare at 12.4%, transportation at 10.8%, and grocery items at 3.3%. Utilities were 6.1% lower than the national average. The index, updated quarterly with an annual report published in January of the succeeding year, does not account for differences in state and local government taxes.

In the third quarter of 2017, many cities had a relatively higher cost of living than the Hartford area. These include, for example, New York City (Manhattan) at 242.9; San Francisco, California at 191.8; and Washington, D.C. at 157.4. Living costs in most cities in the southern and mountain west states are relatively low; for example, Pueblo, Colorado at 89.6; Jackson, Mississippi at 90.2; and San Antonio, Texas at 88.3. The cost of living in the Hartford area was comparable to other cities in the northeast such as Philadelphia, Pennsylvania; Newark, New Jersey; and Providence, Rhode Island, which registered at 116.4, 121.4, and 123.0, respectively. The cost of living index can provide useful information for relocation decisions. Individuals contemplating a job offer in a certain area may use this index as a guide to evaluate the financial merits of the move. For example, Hartford residents considering a move to New York City (Manhattan) would need a 110.5% increase in after-tax income to maintain their current lifestyle. On the other hand, New York City residents contemplating a move to Hartford could have a 52.5% reduction in after-tax income and still maintain their current standard of living.

The cost of living for metropolitan statistical areas within Connecticut also varies. In the third quarter of 2017, the ACCRA cost of living index was 141.0 in the Stamford area, 115.4 in the Hartford area, and 118.4 in the New Haven area. These three statistical areas accounted for more than 80% of the state's total population. The following table demonstrates the relative index of the components for these three Connecticut regions.

TABLE 56
COMPARISON OF COST OF LIVING IN CONNECTICUT
Hartford, New Haven, and Stamford MTAs

2017 Third quarter Data MSA	Composite Index	Grocery Items	Housing	Utilities	Trans-portation	Health Care	Misc.
Hartford	115.4	103.3	129.7	93.9	110.8	112.4	116.7
New Haven	118.4	107.7	128.9	108.0	108.7	114.6	120.3
Stamford	141.0	108.8	206.1	110.1	115.5	113.2	121.2

Source: The Council for Community and Economic Research (C2ER), "*ACCRA Cost of Living Index"*, Data for Third quarter 2017

THE MAJOR REVENUE RAISING TAXES IN THE STATE OF CONNECTICUT

In FY 2017, Connecticut's General Fund derived 85 percent of its revenue from the collection of taxes. To provide an analysis of the overall tax burden on the individuals of each state, the following table was prepared for federal FY 2016. The table shows overall state tax collections as a percentage of personal income. In the table, note that Connecticut ranks 22nd, signifying that in twenty one other states, a greater percentage of an individual's income is collected in state taxes than in Connecticut.

TABLE 57
STATE TAX COLLECTIONS AS A PERCENTAGE OF PERSONAL INCOME
FFY 2016*

State	Percentage	Rank	State	Percentage	Rank
Vermont	9.90%	1	Montana	5.91%	26
Hawaii	9.67%	2	Wyoming	5.90%	27
North Dakota	8.95%	3	Kansas	5.87%	28
Minnesota	8.81%	4	Pennsylvania	5.78%	29
Arkansas	8.00%	5	New Jersey	5.76%	30
Delaware	7.76%	6	Utah	5.73%	31
West Virginia	7.63%	7	Washington	5.67%	32
Mississippi	7.25%	8	Ohio	5.55%	33
California	7.07%	9	Illinois	5.53%	34
Maine	7.06%	10	Nebraska	5.38%	35
New York	6.93%	11	Arizona	5.27%	36
New Mexico	6.83%	12	Alabama	5.26%	37
Kentucky	6.82%	13	Oklahoma	5.03%	38
Iowa	6.63%	14	Georgia	4.97%	39
Wisconsin	6.52%	15	South Carolina	4.90%	40
Idaho	6.38%	16	Virginia	4.78%	41
Nevada	6.29%	17	Missouri	4.69%	42
Michigan	6.27%	18	Louisiana	4.69%	43
Massachusetts	6.25%	19	Tennessee	4.68%	44
Indiana	6.19%	20	Colorado	4.46%	45
North Carolina	6.15%	21	South Dakota	4.22%	46
Connecticut	**6.15%**	**22**	Texas	4.04%	47
Rhode Island	6.13%	23	Florida	3.99%	48
Maryland	6.03%	24	New Hampshire	3.54%	49
Oregon	5.98%	25	Alaska	2.52%	50
U.S. Average	5.85%				

*Based on federal fiscal year from October 2015 through September 2016.
Source: U.S. Census Bureau, "Annual Survey of State Government Tax Collections, 2016"; IHS Economics

Following is a discussion of the major taxes in the State of Connecticut.

Personal Income Tax

For income years commencing on or after January 1, 1991, a personal income tax has been imposed upon income of residents of the state (including resident trusts and estates), part-year residents and certain non-residents who have taxable income derived from or connected with sources within Connecticut. For tax years commencing on or after January 1, 1991, and prior to January 1, 1992, the tax was imposed at the rate of 1.5% on Connecticut taxable income. For tax years commencing on or after January 1, 1992, the separate tax on capital gains, dividends and interest was repealed, and the tax was imposed at the rate of 4.5% of Connecticut taxable income. Beginning with tax years commencing on or after January 1, 1996, a second, lower tax rate of 3% was introduced for a certain portion of taxable income. Beginning with tax years commencing January 1, 2003 the 4.5% rate was increased to 5.0%. Beginning with tax years commencing January 1, 2009, a third higher bracket of 6.5% was introduced on incomes in excess of $500,000 for single filers and $1,000,000 for joint filers. Beginning with tax years commencing January 1, 2011, five new tax brackets replaced all previous brackets greater than the lowest rate. The lowest bracket remained unchanged while the highest bracket imposes a 6.7% tax on incomes in excess of $250,000 for single filers and $500,000 for joint filers. Beginning with tax year commencing January 1, 2015, the 6.7% rate was increased to 6.9% and a new seventh tax bracket was added at a 6.99% rate for incomes in excess of $500,000 for single filers and $1,000,000 for joint filers. The amount of taxable income subject to the lower tax rate has been expanded as set forth in the table below. Depending on federal income tax filing status and Connecticut adjusted gross income, personal exemptions ranging from $15,000 to $24,000 are available to taxpayers, with such exemptions phased out at certain higher income levels. Legislation enacted in 1999 increased the exemption amount for single filers over a certain number of years from $12,000 to $15,000. In addition, tax credits ranging from 75% to 1% of a taxpayer's Connecticut tax liability are also available, again dependent upon federal income tax filing status and Connecticut adjusted gross income (See Table 60 for more details). Neither the personal exemption nor the tax credit is available to a trust or an estate. Also commencing in income year 1996, personal income taxpayers have been eligible for credit for property taxes paid on their primary residence or on their motor vehicle.

The personal income tax generated $8,988.7 million in FY 2017, and $9,181.6 million in FY 2016. In FY 2017, this tax accounted for 50.8% of total General Fund revenue.

TABLE 58
TAXABLE INCOME AMOUNTS SUBJECT TO THE LOWER RATE
WITH THE REMAINDER SUBJECT TO THE HIGHER RATE

			Amount At Low Rate By Filing Status		
Income Year	Low Rate	High Rate	Single	Joint	Head of Household
1996	3.0%	4.5%	$ 2,250	$ 4,500	$ 3,500
1997	3.0%	4.5%	$ 6,250	$12,500	$10,000
1998	3.0%	4.5%	$ 7,500	$15,000	$12,000
1999 - 2002	3.0%	4.5%	$10,000	$20,000	$16,000
2003 - 2008	3.0%	5.0%	$10,000	$20,000	$16,000
2009-2010	3.0%	5.0%-6.5%	$10,000	$20,000	$16,000
2011-2014	3.0%	5.0%-6.7%	$10,000	$20,000	$16,000
2015-Present	3.0%	5.0%-6.99%	$10,000	$20,000	$16,000

The following table compares personal income tax collections as a percentage of personal income for the fifty states for FY 2016.

TABLE 59
STATE INCOME TAX COLLECTIONS AS A PERCENTAGE OF PERSONAL INCOME
FFY 2016*

State	Percentage	Rank	State	Percentage	Rank
Oregon	4.50%	1	Georgia	2.65%	23
New York	4.32%	2	Idaho	2.59%	24
Minnesota	4.28%	3	Illinois	2.59%	25
California	4.13%	4	Rhode Island	2.59%	26
Massachusetts	3.84%	5	Colorado	2.48%	27
Connecticut	**3.34%**	**6**	Missouri	2.43%	28
Delaware	3.15%	7	Michigan	2.33%	29
Wisconsin	3.14%	8	Pennsylvania	2.22%	30
Hawaii	3.11%	9	South Carolina	2.21%	31
North Carolina	3.08%	10	Indiana	2.20%	32
Utah	3.00%	11	Mississippi	2.14%	33
West Virginia	2.96%	12	Alabama	2.05%	34
Virginia	2.93%	13	Oklahoma	1.97%	35
Montana	2.92%	14	Kansas	1.91%	36
Maine	2.89%	15	New Mexico	1.91%	37
New Jersey	2.84%	16	Arizona	1.63%	38
Kentucky	2.83%	17	Ohio	1.59%	39
Maryland	2.78%	18	Louisiana	1.53%	40
Arkansas	2.73%	19	North Dakota	1.10%	41
Iowa	2.72%	20	New Hampshire	1.06%	42
Nebraska	2.68%	21	Tennessee	0.65%	43
Vermont	2.66%	22			
U.S. Average	2.47%				

Notes:

* Based on federal fiscal year from October 2015 through September 2016.

** The following states do not levy an income tax and are not included in the U.S. Average: Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming.

Source: IHS Economics: Bureau of Economic Analysis; U.S. Census Bureau, "2016 Annual Survey of State Government Tax Collections"

The following table shows: A) Connecticut personal income tax exemptions; B) phase out of those exemptions; and C) tax credits available depending on adjusted gross income.

TABLE 60
CONNECTICUT PERSONAL INCOME TAX EXEMPTIONS & CREDITS
Income Year 2017

Single			Married Filing Jointly			Head of Household		
Exemption: $15,000			Exemption: $24,000			Exemption: $19,000		
Phase Out: $1K of exemption for each $1K from $30.0K to $45.0K			Phase Out: $1K of exemption for each $1K from $48K to $72K			Phase Out: $1K of exemption for each $1K from $38K to $57K		
AGI From	AGI To	% of Tax	AGI From	AGI To	% of Tax	AGI From	AGI To	% of Tax
$15,000	$18,800	75%	$24,000	$30,000	75%	$19,000	$24,000	75%
$18,800	$19,300	70%	$30,000	$30,500	70%	$24,000	$24,500	70%
$19,300	$19,800	65%	$30,500	$31,000	65%	$24,500	$25,000	65%
$19,800	$20,300	60%	$31,000	$31,500	60%	$25,000	$25,500	60%
$20,300	$20,800	55%	$31,500	$32,000	55%	$25,500	$26,000	55%
$20,800	$21,300	50%	$32,000	$32,500	50%	$26,000	$26,500	50%
$21,300	$21,800	45%	$32,500	$33,000	45%	$26,500	$27,000	45%
$21,800	$22,300	40%	$33,000	$33,500	40%	$27,000	$27,500	40%
$22,300	$25,000	35%	$33,500	$40,000	35%	$27,500	$34,000	35%
$25,000	$25,500	30%	$40,000	$40,500	30%	$34,000	$34,500	30%
$25,500	$26,000	25%	$40,500	$41,000	25%	$34,500	$35,000	25%
$26,000	$26,500	20%	$41,000	$41,500	20%	$35,000	$35,500	20%
$26,500	$31,300	15%	$41,500	$50,000	15%	$35,500	$44,000	15%
$31,300	$31,800	14%	$50,000	$50,500	14%	$44,000	$44,500	14%
$31,800	$32,300	13%	$50,500	$51,000	13%	$44,500	$45,000	13%
$32,300	$32,800	12%	$51,000	$51,500	12%	$45,000	$45,500	12%
$32,800	$33,300	11%	$51,500	$52,000	11%	$45,500	$46,000	11%
$33,300	$60,000	10%	$52,000	$96,000	10%	$46,000	$74,000	10%
$60,000	$60,500	9%	$96,000	$96,500	9%	$74,000	$74,500	9%
$60,500	$61,000	8%	$96,500	$97,000	8%	$74,500	$75,000	8%
$61,000	$61,500	7%	$97,000	$97,500	7%	$75,000	$75,500	7%
$61,500	$62,000	6%	$97,500	$98,000	6%	$75,500	$76,000	6%
$62,000	$62,500	5%	$98,000	$98,500	5%	$76,000	$76,500	5%
$62,500	$63,000	4%	$98,500	$99,000	4%	$76,500	$77,000	4%
$63,000	$63,500	3%	$99,000	$99,500	3%	$77,000	$77,500	3%
$63,500	$64,000	2%	$99,500	$100,000	2%	$77,500	$78,000	2%
$64,000	$64,500	1%	$100,000	$100,500	1%	$78,000	$78,500	1%

Source: General Statutes of the State of Connecticut

The following table shows whether state and local governmental obligations are included in the definition of state income for tax purposes.

TABLE 61
STATE AND LOCAL GOVERNMENT OBLIGATIONS EXEMPTIONS FOR DETERMINING INDIVIDUAL'S STATE INCOME

State	Own Securities	Other State's Securities	State	Own Securities	Other State's Securities
Alabama	E	T	Montana	E	T
Alaska (no tax)			Nebraska	E	T
Arizona	E	T	Nevada (no tax)		
Arkansas	E	T	New Hampshire	E	T
California	E	T	New Jersey	E	T
Colorado	E	T	New Mexico	E	T
Connecticut	E	T	New York	E	T
Delaware	E	T	North Carolina	E	T
Florida (no tax)			North Dakota	E	E
Georgia	E	T	Ohio	E	T
Hawaii	E	T	Oklahoma	T (1)	T
Idaho	E	T	Oregon	E	T
Illinois	T (1)	T	Pennsylvania	E	T
Indiana	E	T (2)	Rhode Island	E	T
Iowa	T (1)	T	South Carolina	E	T
Kansas	E	T	South Dakota (no tax)		
Kentucky	E	T	Tennessee	E	T
Louisiana	E	T	Texas (no tax)		
Maine	E	T	Utah	E	T(3)
Maryland	E	T	Vermont	E	T
Massachusetts	E	T	Virginia	E	T
Michigan	E	T	Washington (no tax)		
Minnesota	E	T	West Virginia	E	T
Mississippi	E	T	Wisconsin	T (1)	T
Missouri	E	T	Wyoming (no tax)		

T = Taxable / E = Exempt

(1) Interest earned from some qualified obligations is exempt from the tax.
(2) Taxable for bonds acquired after 2011, bonds acquired before 2012 are exempt.
(3) Taxable for bonds acquired after 2002 if the other state or locality imposes an income-based tax on Utah bonds.

Source: Commerce Clearing House, Inc.; State Taxation of Municipal Bonds for Individuals

The following table compares the personal income tax rates and bases for the fifty states and the District of Columbia.

TABLE 62
PERSONAL INCOME TAX BY STATE

	Low Bracket		High Bracket			Low Bracket		High Bracket	
	%	To Net	%	From Net		%	To Net	%	From Net
State	Rate	Income	Rate	Income $	State	Rate	Income $	Rate	Income $
Alabama (3)	2.00	1,000	5.00	6,001	Missouri (1)	1.50	1,000	6.00	9,001
Arizona (1)	2.59	20,690	4.54	310,318	Montana (1,c)	1.00	2,900	6.90	17,601
Arkansas (3,c)	0.90	4,299	6.90	35,100	Nebraska (1)	2.46	6,170	6.84	59,661
California (1,c)	1.00	16,447	12.30	1,102,947	New Hampshire	(b)			
Colorado (2)	4.63	All			New Jersey (3)	1.40	20,000	8.97	500,001
Connecticut	**3.00**	**20,000**	**6.99**	**1,000,001**	New Mexico (1)	1.70	8,000	4.90	24,001
Delaware (1)	2.20	5,000	6.60	60,001	New York (1,c)	4.00	17,150	8.82	2,155,351
Georgia (1)	1.00	1,000	6.00	10,001	N. Carolina (1)	5.499	All		
Hawaii (1)	1.40	4,800	11.00	400,001	N. Dakota (2,c)	1.10	63,400	2.90	416,701
Idaho (1,c)	1.60	2,943	7.40	22,086	Ohio (1)	1.98	16,000	4.997	213,351
Illinois (1)	4.95	All			Oklahoma (1)	0.50	2,000	5.00	12,201
Indiana (1)	3.23	All			Oregon (2,c)	5.00	6,800	9.9	250,001
Iowa (1,c)	0.36	1,539	8.98	70,786	Pennsylvania (3)	3.07	All		
Kansas (1)	2.90	30,000	5.20	30,001	Rhode Island(1,c)	3.75	62,550	5.99	142,151
Kentucky (1)	2.00	3,000	6.00	75,001	S. Carolina (2,c)	3.00	5,860	7.0	14,651
Louisiana (1)	2.00	25,000	6.00	100,001	Tennessee	(b)			
Maine (1,c)	5.80	42,899	7.15	101,550	Utah (1)	5.00	All		
Maryland (1)	2.00	1,000	5.75	300,001	Vermont (2,c)	3.55	63,350	8.95	416,701
Massachusetts	5.10	All	(a)		Virginia (1)	2.00	3,000	5.75	17,001
Michigan (1)	4.25	All			W. Virginia (1)	3.00	10,000	6.5	60,001
Minnesota (2,c)	5.35	37,110	9.85	261,511	Wisconsin (1,c)	4.00	14,980	7.65	329,811
Mississippi (3)	3.00	5,000	5.00	10,001	Dist. of Col. (2)	4.00	10,000	8.95	1,000,000

The following states do not levy an income tax: Alaska, Florida, Nevada, South Dakota, Texas, Washington & Wyoming.

Note: Tax rates are for married filers filing joint returns and do not include income taxes levied at the local level.

Base: (1) – Modified Federal Adjusted Gross Income
(2) – Modified Federal Taxable Income
(3) – State's Individual Definition of Taxable Income

(a) The rate is 12% for short-term capital gains and 5.10% for interests and dividends.
(b) Income taxes are limited to interest and dividends: 5.0% in NH and 3.0% in Tenn.
(c) Brackets are indexed for inflation annually. Oregon brackets $125,000 and over are not indexed for inflation.

Sales and Use Tax

The sales tax is imposed, subject to certain limitations, on the gross receipts from certain transactions within the state of persons engaged in business in the state including: 1) retail sales of tangible personal property; 2) the sale of certain services; 3) the leasing or rental of tangible personal property; 4) the producing, fabricating, processing, printing, or imprinting of tangible personal property to special order or with material furnished by the consumer; 5) the furnishing, preparing or serving of food, meals or drinks; and 6) the occupancy of hotels or lodging house rooms for a period not exceeding thirty consecutive calendar days.

The use tax is imposed on the consideration paid for certain services, purchases or rentals of tangible personal property used within the state and not subject to the sales tax.

Both the sales and use taxes are levied at a rate of 6.35%. Various exemptions from the tax are provided, based on the nature, use, or price of the property or services involved or the identity of the purchaser. Certain items are taxed at reduced rates. Hotel rooms are taxed at 15%.

The sales and use tax is an important source of revenue for the State of Connecticut. On an all funds basis, the tax generated $4,380.2 million in FY2017, $4,334.1 million in FY2016, and $4,216.3 million in FY 2015. In FY 2017, sales and use taxes accounted for 25.5% of the total revenue in the general fund, compared to 27.6% in 2016 and 24.3% in FY 2015.

When analyzing sales taxes, a simple comparison of rates is not an effective way to measure the tax burden imposed. An analysis of the tax base must be undertaken to provide a more meaningful comparison.

To provide a relevant comparison of sales tax burden, two studies are presented. The first study shows sales tax collections as a percentage of personal income. The larger the percentage of personal income going to sales tax collections, the heavier the burden of that tax. The table on the following page shows sales tax collections as a percentage of personal income and the corresponding ranking of the states. Note that Connecticut's tax burden is less than 34 other states. The comparison is based on FY 2016 data. From FY 1991 to FY 2016, Connecticut's sales tax collections as a percentage of personal income dropped from 3.15% with a rank of ninth to 1.51% with a rank of 35th, and compared to the national average of 1.85%. This change was primarily due to the reduction in Connecticut's sales tax rate from 8% to 6.35% and an expansion of the exemptions on certain services and goods.

The second study provides an analysis of major sales tax exemptions by state. Connecticut excludes from its sales tax such major items as food products for human consumption, drugs and medicines used by humans, machinery, professional services, residential utilities and motor fuels. Table 64 shows the comparison for major sales tax exemptions.

TABLE 63
SALES TAX COLLECTIONS AS A PERCENTAGE OF PERSONAL INCOME
FY 2016*

State	Tax Rate (%)	Percent of Personal Income	Rank	State	Tax Rate (%)	Percent of Personal Income	Rank
Hawaii	4.000**	4.48%	1	Wisconsin	5.000**	1.87%	24
Washington	6.500**	3.45%	2	Nebraska	5.500**	1.87%	25
Nevada	6.850**	3.34%	3	Rhode Island	7.000**	1.83%	26
Mississippi	7.000**	3.12%	4	California	7.250	1.78%	27
Arkansas	6.500	2.80%	5	Illinois	6.250	1.71%	28
New Mexico	5.125**	2.61%	6	New Jersey	6.625**	1.69%	29
Indiana	7.000**	2.57%	7	North Carolina	4.750**	1.69%	30
Texas	6.250**	2.49%	8	Utah	4.700	1.69%	31
North Dakota	5.000**	2.45%	9	South Carolina	6.000**	1.68%	32
Tennessee	7.000**	2.45%	10	Louisiana	5.000**	1.60%	33
Arizona	5.600**	2.39%	11	Pennsylvania	6.000**	1.58%	34
Ohio	5.750	2.37%	12	**Connecticut**	**6.350**	**1.51%**	**35**
Florida	6.000**	2.36%	13	Oklahoma	4.500**	1.47%	36
Idaho	6.000**	2.36%	14	Massachusetts	6.250**	1.40%	37
Kansas	6.500**	2.36%	15	Alabama	4.000**	1.38%	38
South Dakota	4.500**	2.34%	16	Missouri	4.225**	1.35%	39
Maine	5.500	2.32%	17	Maryland	6.000	1.30%	40
Iowa	6.000**	2.19%	18	Georgia	4.000**	1.27%	41
Michigan	6.000**	2.09%	19	Vermont	6.000**	1.19%	42
Kentucky	6.000**	2.01%	20	New York	4.000**	1.15%	43
Wyoming	4.000**	1.98%	21	Colorado	2.900**	0.99%	44
Minnesota	6.875**	1.95%	22	Virginia	5.300**	0.89%	45
West Virginia	6.000**	1.92%	23				
U.S. Average***		1.85%					

Notes:
* Based on federal fiscal year from October 2015 through September 2016.
** Local tax rates are additional
*** The following states do not levy a sales tax and are not included in the U.S. Average: Alaska, Delaware, Montana, New Hampshire, and Oregon
- Tax rates are effective as of January 1, 2018

Source: Bureau of Economic Analysis, U.S. Census Bureau, "Annual Survey of State Government Tax Collections, 2016"; IHS Economics

TABLE 64
MAJOR SALES TAX EXEMPTIONS BY STATE

State	Food	Prescription Drugs	Motor Fuels	Clothes
Alabama	T	E	E	T
Arizona	E	E	E	T
Arkansas	T (1)	E	E	T
California	E	E	T	T
Colorado	E	E	E	T
Connecticut	E	E	E	T
Florida	E	E	E (6)	T
Georgia	E	E	T (1)	T
Hawaii	T	E	T	T
Idaho	T	E	E	T
Illinois	T (1)	T (1)	T (5)	T
Indiana	E	E	T	T
Iowa	E	E	E	T
Kansas	T	E	E	T
Kentucky	E	E	E	T
Louisiana	E	E	E	T
Maine	E	E	E	T
Maryland	E	E	E	T
Massachusetts	E	E	E	E (2)
Michigan	E	E	T	T
Minnesota	E	E	E	E
Mississippi	T	E	E	T
Missouri	T (1)	E	E	T
Nebraska	E	E	E	T
Nevada	E	E	E	T
New Jersey	E	E	E	E
New Mexico	E	E	E	T
New York	E	E	T	E (3)
North Carolina	E	E	E	T
North Dakota	E	E	E	T
Ohio	E	E	E	T
Oklahoma	T	E	E	T
Pennsylvania	E	E	E	E
Rhode Island	E	E	E	E (4)
South Carolina	E	E	E	T
South Dakota	T	E	E	T
Tennessee	T (1)	E	E	T
Texas	E	E	E	T
Utah	T (1)	E	E	T
Vermont	E	E	E	E
Virginia	T (1)	E	E	T
Washington	E	E	E	T
West Virginia	E	E	T	T
Wisconsin	E	E	E	T
Wyoming	E	E	E	T
Total Taxable	13	1	8	38

Note: These states do not levy a sales tax: Alaska, Delaware, Montana, New Hampshire & Oregon.
T = Taxable under the sales tax, E = Exempt from the sales tax (1) Taxed at a reduced rate. (2) Up to a sales price of $175 per item. (3) Up to a sales price of $110 per item. (4) Up to a sales price of $250 per item. (5) Sales of majority blended ethanol fuel are exempt. (6) Unless used by railroad locomotives or vessels to transport persons or property in interstate or foreign commerce.
Source: Commerce Clearing House, Inc., Federation of Tax Administrators

Corporation Business Tax

The Corporation Business Tax is imposed on any corporation, joint stock company or association or fiduciary of any of the foregoing which carries on or has the right to carry on business within the state or owns or leases property or maintains an office within the state. The Corporation Business Tax consists of three components, and the taxpayer's liability is the greatest amount computed under any of the three components. The first is a tax measured by the net income of a taxpayer (the "Income-Base Tax"). Net income means federal gross income (with limited variations) less certain deductions, most of which correspond to the deductions allowed under the Internal Revenue Code of 1986, as amended from time to time. The corporation business tax generated $1,037.6 million in FY 2017, $880.4 million in FY 2016, and $814.8 million in FY 2015. In FY 2017, this tax accounted for 5.9% of total General Fund revenue, compared to 5.0% in FY 2016.

If a taxpayer is taxable solely within the state, the Income-Base Tax is based upon its entire net income. If a taxpayer is taxable in another state in which it conducts business, the base against which the Income-Base Tax is measured is the portion of the taxpayer's entire net income assigned to the state, pursuant to a statutory formula designed to identify the proportion of the taxpayer's trade or business conducted within the state based upon the proportion of sales within the state. Public Act 15-244 maintained an existing 20% surcharge for income year 2016 and 2017, declining to 10% in income year 2018 and eliminating the surcharge in income year 2019 and beyond. Currently, the Income-Base Tax is levied at the rate of 7.5%. The surcharge does not apply to companies with less than $100 million in annual gross revenue or whose tax liability does not exceed the minimum tax of $250. The surcharge is calculated prior to the application of any credits.

The second part of the Corporation Business Tax is an additional tax on capital (the "Additional Tax"). The additional tax base is determined either as a specific maximum dollar amount or at a flat rate on a defined base, usually related in whole or part to its capital stock and balance sheet surplus, profit and deficit. If a taxpayer is also taxable in another state in which it conducts business, the defined base is apportioned most often to the value of certain assets having tax status within the state. The third component of the Corporation Business Tax is the Minimum Tax, which is $250. Corporations must compute their tax under all three bases and then pay the tax under the highest computation.

Numerous tax credits are also available to corporations including, but not limited to, research and development credits of 1% to 6%, credits for property taxes paid on electronic and data processing equipment, and a 5% credit for investments in fixed and human capital.

The table on the following page provides a comparison of the assessed rates for the corporation business tax for the fifty states and the District of Columbia.

TABLE 65
CORPORATION TAX BY STATE
FOR TAX YEAR 2017

	Low Bracket		High Bracket			Low Bracket		High Bracket	
	%	To Net	%	From Net		%	To Net	%	From Net
State	Rate	Income $	Rate	Income $	State	Rate	Income $	Rate	Income $
Alabama	6.50	All			Missouri	6.25	All		
Alaska	0.00	24,999	9.40	222,000	Montana	6.75	All		
Arizona	4.90	All			Nebraska	5.58	100,000	7.81	100,001
Arkansas	1.00	3,000	6.50	100,001	Nevada (7)				
California (1)	8.84	All			New Hampshire	8.20	All		
Colorado	4.63	All			New Jersey	6.50	50,000	9.00	100,001
Connecticut (2)	**7.50**	**All**			New Mexico	4.80	500,000	6.20	500,001
Delaware	8.70	All			New York (8)	6.50	All		
Florida (3)	5.50	All			North Carolina	3.00	All		
Georgia	6.00	All			North Dakota	1.41	25,000	4.31	50,001
Hawaii	4.40	25,000	6.40	100,001	Ohio (9)				
Idaho	7.40	All			Oklahoma	6.00	All		
Illinois (4)	9.50	All			Oregon	6.60	1.0M	7.60	1.0M+
Indiana (5)	6.25	All			Pennsylvania	9.99	All		
Iowa	6.00	25,000	12.00	250,000	Rhode Island	7.00	All		
Kansas (6)	4.00	All			South Carolina	5.00	All		
Kentucky	4.00	50,000	6.00	100,001	Tennessee	6.50	+All		
Louisiana	4.00	25,000	8.00	200,001	Texas (10)				
Maine	3.50	25,000	8.93	250,001	Utah	5.00	All		
Maryland	8.25	All			Vermont	6.00	10,000	8.50	25,001
Massachusetts	8.00	All			Virginia	6.00	All		
Michigan	6.00	All			West Virginia	6.50	All		
Minnesota	9.80	All			Wisconsin	7.90	All		
Mississippi	3.00	5,000	5.00	10,001	District of Col.	9.00	All		

Note: The table does not include corporate income taxes levied at the local level. These states do not levy a corporate income tax: South Dakota, Washington & Wyoming. The following states require a minimum tax: AZ $50; CA $800; CT $250; ID $20; MA $456; MT $50; NJ $500; NY $25; OR $150; RI $500; UT $100; VT $250; District of Columbia $250

(1) Banks and financial corporations (except financial S-corporations) are subject to a 10.84% tax.
(2) A 20% surcharge is imposed for tax years 2012 - 2017 on companies with more than $100 million in annual gross revenue.
(3) An alternative minimum tax imposed 3.3%, an exemption of $50,000 is allowed.
(4) Sum of corporation income tax rate of 7.00% and a replacement tax of 2.5%.
(5) Rate reducing to 6.00% after June 30, 2017 and phasing down to 4.90% after June 30, 2021.
(6) A surtax of 3.0% is imposed on income over $50,000.
(7) Commerce Tax based on gross receipts. Rates vary from 0.051%-0.331%, depending on industry.
(8) Rate of 0.0% for qualified manufactures and 5.5% for qualified emerging technology companies
(9) Commercial Activity Tax based on a tiered AMT and 0.26% on gross receipts over $1 million
(10) A franchise tax of 0.75% (0.375% for qualifying wholesalers and retailers) is imposed on entities with $1,110,000 of total revenues.

Source: Commerce Clearing House. Rates as of December 2017.

Motor Fuels Tax

The state imposes a tax, subject to certain limitations, (1) on gasoline and certain other liquids which are prepared, advertised, offered for sale, sold for use as, or commonly and commercially used as, a fuel in internal combustion engines ("gasoline" or "gasohol"), and (2) on all combustible gases and liquids which are suitable and used for generation of power to propel motor vehicles ("special fuels"). The distributors liable for these taxes are those entities which distribute fuel within the state, import fuel into the state for distribution within the state, or produce or refine fuels within the state.

The Gasoline Tax is imposed on each gallon of gasoline or gasohol sold (other than to another distributor) or used within the state by a distributor. The tax on special fuels (the "Special Fuel Tax") is assessed on each gallon of special fuels used within the state in a motor vehicle licensed, or required to be licensed, to operate upon the public highways of the state.

The Special Fuels Tax is paid by vehicle users, and is generally collected by retail dealers of special fuels (primarily diesel fuel). Various exemptions from both taxes are provided, among which are sales to, or use by, the United States, the state or its municipalities.

The Motor Carrier Road Tax is imposed upon gallons of fuel (primarily diesel fuel) used by business entities ("motor carriers") which operate any of the following vehicles in the state: (1) passenger vehicles seating more than nine persons; (2) road tractors or tractor trucks; or (3) trucks having a registered gross weight in excess of eighteen thousand pounds. Such motor carriers pay the tax on the gallons of fuel which they use while operating such vehicles in the state. The number of gallons subject to the tax is determined by multiplying the total number of gallons of fuel used by the motor carrier during each year by a fraction, the numerator of which is the total number of miles traveled by the motor carrier's vehicles within the state during the year, and the denominator of which is the total number of miles traveled by the motor carrier's vehicles both within and outside the state during the year.

The Gasoline Tax is 25 cents per gallon. Effective July 1, 2017, the Special Fuels and Motor Carrier Taxes were unchanged from FY 2016 at 41.7 cents per gallon. The 1983 session of the General Assembly enacted a Special Transportation Fund for highway construction and maintenance and 1 cent per gallon of the motor fuels tax was dedicated to this fund. Beginning July 1, 1984, the Special Transportation Fund was expanded to include all collections from the motor fuels tax.

The table on the following page shows the comparative rates for Motor Fuel Taxes for the 50 states.

TABLE 66
MOTOR FUEL TAXES BY STATE

State	Excise Tax	Sales Tax Rate %	Total Tax*	State	Excise Tax	Sales Tax Rate %	Total Tax*
Alabama	18.0¢	-	18.0¢	Montana	31.5¢	-	31.5¢
Alaska	8.0	-	8.0	Nebraska	27.0	-	27.0
Arizona	18.0	-	18.0	Nevada	24.0	-	24.0
Arkansas	21.5	-	21.5	New Hampshire	22.2	-	22.2
California	41.7	2.3	48.4	New Jersey	10.5	-	10.5
Colorado	22.0	-	22.0	New Mexico	17.0	-	17.0
Connecticut (a)	**25.0**	**-**	**25.0**	New York	8.0	4.0	18.5
Delaware	23.0	-	23.0	North Carolina (e)	34.0	-	34.0
Florida	17.4	-	17.4	North Dakota	23.0	-	23.0
Georgia (b)	26.8	-	41.4	Ohio	28.0	-	28.0
Hawaii	16.0	4.0	26.8	Oklahoma	16.0	-	16.0
Idaho	32.0	-	32.0	Oregon	30.0	-	30.0
Illinois	19.0	6.3	36.3	Pennsylvania	57.6	-	57.6
Indiana (c)	28.0	-	41.6	Rhode Island	32.0	-	32.0
Iowa	30.5	-	30.5	South Carolina	18.0	-	18.0
Kansas	24.0	-	24.0	South Dakota	30.0	-	30.0
Kentucky (d)	26.0	-	26.0	Tennessee	25.4	-	25.4
Louisiana	20.0	-	20.0	Texas	20.0	-	20.0
Maine	30.0	-	30.0	Utah	29.4	-	29.4
Maryland	33.8	-	33.8	Vermont	12.1	-	12.1
Massachusetts	24.0	-	24.0	Virginia	16.2	-	16.2
Michigan	26.3	6.0	43.2	Washington	37.5	-	37.5
Minnesota	28.5	-	28.5	West Virginia (f)	20.5	-	37.8
Mississippi	18.0	-	18.0	Wisconsin	32.9	-	32.9
Missouri	17.3	-	17.3	Wyoming	24.0	-	24.0

* The total column in the above table is the sum of per gallon state tax and sales taxes or additional taxes where applicable. The price used to estimate the effect of the sales tax, which excludes state taxes, was $2.55 per gallon.

(a) Plus a petroleum gross receipts tax of 8.1% of wholesale price.
(b) Includes a pre-paid sales tax converted to a cents per gallon rate of 14.6¢
(c) The sales tax rate on gasoline is 13.6 cents starting in January 2018.
(e) KY: Rate is variable, adjusted quarterly. MA: Rate is variable, adjusted annually
(f) Includes an additional tax based on the average wholesale price of motor fuel.
(g) Plus additional variable wholesale tax rate of 17.3¢ per gallon.

Source: Commerce Clearing House, Inc.; National Conference of State Legislatures

Other Sources

The following tables show the most recent comparative rates or exemptions for some of the other taxes and fees collected by the states.

TABLE 67
CIGARETTE TAXES BY STATE

State	Rate	State	Rate
Alabama	$0.675	Montana	$1.70
Alaska	$2.00	Nebraska	$0.64
Arizona	$2.00	Nevada	$1.80
Arkansas	$1.15	New Hampshire	$1.78
California	$2.87	New Jersey	$2.70
Colorado	$0.84	New Mexico	$1.66
Connecticut	**$4.35**	New York	$4.35
Delaware	$2.10	North Carolina	$0.45
Florida	$1.339	North Dakota	$0.44
Georgia	$0.37	Ohio	$1.60
Hawaii	$3.20	Oklahoma	$1.03
Idaho	$0.57	Oregon	$1.32
Illinois	$1.98	Pennsylvania	$2.60
Indiana	$0.995	Rhode Island	$4.25
Iowa	$1.36	South Carolina	$0.57
Kansas	$1.29	South Dakota	$1.53
Kentucky	$0.60	Tennessee	$0.62
Louisiana	$1.08	Texas	$1.41
Maine	$2.00	Utah	$1.70
Maryland	$2.00	Vermont	$3.08
Massachusetts	$3.51	Virginia	$0.30
Michigan	$2.00	Washington	$3.025
Minnesota	$3.04	West Virginia	$1.20
Mississippi	$0.68	Wisconsin	$2.52
Missouri	$0.17	Wyoming	$0.60

Note: The tax is based on a pack of 20 cigarettes.

Source: Commerce Clearing House, Inc., Federation of Tax Administrators. Rates as of January 2017.

TABLE 68
INSURANCE COMPANIES TAX BY STATE

State	Domestic Tax Rate % (1)	Foreign Tax Rate % (1)	State	Domestic Tax Rate % (1)	Foreign Tax Rate % (1)
Alabama	0.50-4.00	0.50-4.00	Montana	2.75	2.75
Alaska	0.75-6.00	0.75-6.00	Nebraska (4)	0.375-3.00	0.50-3.00
Arizona (3)	0.66-3.00	0.66-3.00	Nevada	2.00-3.50	2.00-3.50
Arkansas	0.75-3.00	0.75-3.00	New Hampshire (5)	1.25-4.00	3.00
California	0.50-5.00	0.50-5.00	New Jersey	1.05-2.10	1.05-2.10
Colorado (2)	0.50-2.25	0.50-2.25	New Mexico	3.003-4.003	3.003-4.003
Connecticut	**1.50-4.00**	**1.50-4.00**	New York	1.75-7.10	1.75-7.10
Delaware (3)	1.75-5.00	1.75-5.00	North Carolina	1.90-2.50	1.90-2.50
Florida (4)	0.75-1.75	0.75-1.75	North Dakota	1.75-2.00	1.75-2.00
Georgia (2,4)	0.50-4.00	0.50-4.00	Ohio (4)	1.00-5.00	1.00-5.00
Hawaii	0.88-4.27	0.88-4.27	Oklahoma (4)	2.25-6.00	2.25-6.00
Idaho (2)	1.40	1.50	Oregon	(7)	(7)
Illinois (4)	0.40-3.50	0.40-3.50	Pennsylvania	1.25-5.00	1.25-5.00
Indiana (4)	1.30	1.30	Rhode Island	2.00	2.00
Iowa	1.00 – 6.50	1.00	South Carolina	0.75-2.35	0.75-2.35
Kansas (4)	2.00-6.00	2.00-6.00	South Dakota (4)	1.25-2.50	1.25-2.50
Kentucky (4)	1.50-2.00	1.50-2.00	Tennessee (2,4,5)	1.75-6.00	1.75-6.00
Louisiana (4)	(6)	(6)	Texas	0.875-4.85	0.875-4.85
Maine	1.00-2.55	1.00-2.55	Utah (3)	0.45-4.25	0.45-4.25
Maryland	2.00-3.00	2.00-3.00	Vermont	2.00	2.00
Massachusetts (3)	2.00-5.70	2.00-5.70	Virginia	1.00-2.50	1.00-2.50
Michigan	1.25-2.00	1.25-2.00	Washington	0.95-2.00	0.95-2.00
Minnesota (4)	1.00-2.00	1.00-2.00	W. Virginia (1,4,5)	2.00	2.00
Mississippi (4)	3.00	3.00	Wisconsin	2.00-3.50	0.50-2.375
Missouri (1)	1.00-2.00	1.00-2.00	Wyoming	0.75-1.00	0.75-1.00

Note: The tax is based on the net premiums of authorized insurers, excludes surplus line rates, captive rates, and marine underwriting profits.

(1) Depending upon the type of insurance issued or the type of organization formed.
(2) Rate is reduced depending upon the percentage of premiums or assets invested in the State or the State's securities.
(3) Plus a surtax of 0.4312% on vehicles in Arizona and 0.25% in Delaware.
(4) Plus a fire marshal's tax not to exceed 1%; 0.375% in Oklahoma; 0.50% in Indiana and South Dakota; 0.50% in West Virginia; 0.65% in Minnesota; 0.75% in Kentucky, Nebraska, Ohio, Tennessee, 0.80% in Kansas; 1.25% in Louisiana; 1.4% in Maine, and 1.15% in Oregon.
(5) With minimum tax of $200 in New Hampshire, North Dakota, & West Virginia, $150 in Tennessee and $250 in New York and Ohio.
(6) Life, health, accident, or service insurers—premiums of $7,000 or less, $140; over $7,000, $140 plus $225 per each additional $10,000 over $7,000.
(7) After 2001, foreign and alien insurers are no longer subject to gross premium tax, but are subject to the corporate excise tax.

Source: Commerce Clearing House, Inc.

TABLE 69
ALCOHOLIC BEVERAGE EXCISE TAXES BY STATE
(Dollars per Gallon)

State	Distilled Spirits	Wines 14% or Less	Wines 14% to 21%	Bee	State	Distilled Spirits	Wines 14% or Less	Wines 14% to 21%	
Alabama (2)	(1)	1.70	9.16	.53	Montana	(1)	1.02	1.02	.14
Alaska	12.80	2.50	2.50	1.07	Nebraska	3.75	.95	.95	.31
Arizona	3.00	.84	.84	.16	Nevada	3.60	.70	1.30	.16
Arkansas	2.50	.75	.75	.23	New Hampshire	(1)	.30	.30	.30
California	3.30	.20	.20	.20	New Jersey	5.50	.88	.88	.12
Colorado	2.28	.28	.28	.08	New Mexico	6.06	1.70	1.70	.41
Connecticut	**5.40**	**.72**	**.72**	**.24**	New York	6.44	.30	.30	.14
Delaware	3.75	.97	.97	.16	N. Carolina	(1)	1.00	1.11	.62
Florida	6.50	2.25	3.00	.48	N. Dakota	2.50	.50	.60	.16
Georgia (2)	3.79	1.51	2.54	.32	Ohio	(1)	.32	1.00	.18
Hawaii	5.98	1.38	1.38	.93	Oklahoma	5.56	.72	.72	.40
Idaho	(1)	.45	.45	.15	Oregon	(1)	.67	.67	.08
Illinois (2)	8.55	1.39	1.39	.23	Pennsylvania	(1)	(1)	(1)	.08
Indiana	2.68	.47	.47	.12	Rhode Island	5.40	1.40	1.40	.11
Iowa	(1)	1.75	1.75	.19	S. Carolina (3)	2.72	1.08	1.08	.77
Kansas	2.50	.30	.75	.18	S. Dakota	3.93	.93	1.45	.27
Kentucky	1.92	.50	.50	.08	Tennessee (4)	4.40	1.21	1.21	1.21
Louisiana	3.03	.76	1.32	.40	Texas	2.40	.20	.41	.20
Maine	(1)	.60	(1)	.35	Utah	(1)	(1)	(1)	.41
Maryland (2)	1.50	.40	.40	.09	Vermont	(1)	.55	.55	.27
Massachusetts	4.05	.55	.55	.11	Virginia	(1)	1.51	(1)	.26
Michigan	(1)	.51	.76	.20	Washington	14.27	.87	1.72	.26
Minnesota	5.03	.30	.95	.15	W. Virginia	(1)	1.00	1.00	.18
Mississippi	(1)	.35	.35	.43	Wisconsin (5)	3.25	.25	.45	.06
Missouri	2.00	.42	.42	.06	Wyoming	(1)	(1)	(1)	.02

(1) Government directly controls sale, revenue generated through markup, store profits, and additional taxes and fees.
(2) Additional excise taxes on beer at the local level. Additional local taxes in NYC.
(3) Additional surtaxes of 9% on alcoholic beverages and 18¢ per gallon for wine are applied.
(4) Tennessee levies a 17% surcharge on the wholesale price of malt beverages.
(5) An administration fee of 3¢ per gallon is imposed on intoxicating liquors.
(6) Over 20%-$8.55/gallon

Source: Commerce Clearing House, Inc., Federation of Tax Administrators. Rates as of January 2017.

TABLE 70
GENERAL FUND REVENUES

TAXES ($K)	FY 2013	FY 2014[1]	FY 2015	FY 2016	FY 2017
Personal Income	8,719,245	8,718,659	9,151,037	9,181,648	8,988,667
Sales and Use	3,896,998	4,100,564	4,205,051	4,181,852	4,192,203
Corporation	742,515	782,239	814,805	880,449	1,037,565
Public Service Corporation	266,647	293,303	276,833	289,894	271,504
Inheritance & Estate	439,519	168,075	176,750	221,821	218,660
Insurance Companies	260,858	240,666	220,629	238,843	222,804
Cigarettes	399,822	376,835	358,704	373,518	381,455
Real Estate Conveyance	113,830	180,511	185,955	196,498	209,982
Oil Companies	175,526	35,580	-	170	-
Electric Generation	66,823	15,315	7	-	-
Alcoholic Beverages	60,406	60,644	61,651	63,113	63,155
Admissions, Dues, Cabaret	36,544	39,935	38,436	39,331	39,509
Miscellaneous	523,028	498,260	474,009	718,850	699,331
Total - Taxes	15,701,763	15,510,588	15,963,866	16,385,988	16,324,835
Less Refunds of Taxes	(1,144,993)	(1,182,397)	(1,163,639)	(1,223,198)	(1,263,824)
Less Refunds of R&D Credit	(4,086)	(5,055)	(7,878)	(7,623)	(5,485)
Total - Taxes Less Refunds	14,552,684	14,323,136	14,792,350	15,155,167	15,055,526
OTHER REVENUE					
Transfer-Special Revenue	315,452	323,219	323,315	339,961	328,716
Indian Gaming Payments	296,396	279,873	267,986	265,907	269,906
Licenses, Permits & Fees	262,068	314,722	257,444	296,502	275,386
Sales of Commodities & Services	36,298	40,523	35,813	43,454	39,143
Rents, Fines & Escheats	144,141	130,875	168,679	141,741	151,402
Investment Income	(792)	(336)	943	910	2,371
Miscellaneous	163,818	206,782	185,014	179,820	330,388
Less Refunds of Payments	(74,016)	(66,625)	(64,281)	(64,281)	(44,199)
Total - Other Revenue	1,143,366	1,229,032	1,174,912	1,207,958	1,353,113
OTHER SOURCES					
Federal Grants	3,733,910	1,243,861	1,241,244	1,301,532	1,325,237
Transfer from Tobacco Fund	103,100	107,000	97,367	110,600	118,299
Transfer From/(To) Other Funds	(128,028)	106,528	(23,834)	5,565	(149,207)
Total - Other Sources	$3,708,982	$1,457,389	$1,314,777	$1,417,697	1,294,328
GRAND TOTAL	$19,405,031	$17,009,556	$17,282,038	$17,780,822	17,702,968
TAXES	**% of Total**	**% of Total**	**% of Total**	**% of Total**	**% of Total**
Personal Income	44.93	51.26	52.95	51.64	50.77
Sales and Use	20.08	24.11	24.33	23.52	23.68
Corporation	3.83	4.60	4.71	4.95	5.86
Public Service Corporation	1.37	1.72	1.60	1.63	1.53
Inheritance & Estate	2.26	0.99	1.02	1.25	1.24
Insurance Companies	1.34	1.41	1.28	1.34	1.26
Cigarettes	2.06	2.22	2.08	2.10	2.15
Real Estate Conveyance	0.59	1.06	1.08	1.11	1.19
Oil Companies	0.90	0.21	-	-	-
Electric Generation	0.34	0.09	0.00	-	-
Alcoholic Beverages	0.31	0.36	0.36	0.35	0.36
Admissions, Dues, Cabaret	0.19	0.23	0.22	0.22	0.22
Miscellaneous	2.70	2.93	2.74	4.04	3.95
Total - Taxes	80.92	91.19	92.37	92.16	92.22
Less Refunds of Taxes	(5.90)	(6.95)	(6.73)	(6.88)	(7.14)
Less Refunds of R&D Credit	(0.02)	(0.03)	(0.05)	(0.04)	(0.03)
Total – Taxes Less Refunds	74.99	84.21	85.59	85.23	85.05
OTHER REVENUE					
Transfer-Special Revenue	1.63	1.90	1.87	1.91	1.86
Indian Gaming Payments	1.53	1.65	1.55	1.50	1.52
Licenses, Permits & Fees	1.35	1.85	1.49	1.67	1.56
Sales of Commodities & Services	0.19	0.24	0.21	0.24	0.22
Rents, Fines & Escheats	0.74	0.77	0.98	0.80	0.86
Investment Income	(0.00)	(0.00)	0.01	0.01	0.01
Miscellaneous	0.84	1.22	1.07	1.01	1.87
Less Refunds of Payments	(0.38)	(0.39)	(0.37)	(0.36)	(0.25)
Total - Other Revenue	5.89	7.23	6.80	6.79	7.64
OTHER SOURCES				-	-
Federal Grants	19.24	7.31	7.18	7.32	7.49
Transfer from Tobacco Fund	0.53	0.63	0.56	0.62	0.67
Transfer From/(To) Other Funds	(0.66)	0.63	(0.14)	0.03	(0.84)
Total - Other Sources	19.11	8.57	7.61	7.97	7.31
GRAND TOTAL	100.00	100.00	100.00	100.00	100.00

TABLE 71
SPECIAL TRANSPORTATION FUND REVENUES

TAXES ($K)	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Motor Fuels	$501,269	$508,058	$516,581	$518,230	$498,455
Oil Companies	199,400	380,700	337,903	250,000	238,354
Sales and Use Tax	-	-	-	109,002	188,380
DMV Sales	79,000	82,216	83,868	87,161	84,951
Less Refunds of Taxes	(6,094)	(6,993)	(7,236)	(17,409)	(13,236)
Total – Taxes Less Refunds	$773,575	$963,981	$931,116	$946,984	$996,904
OTHER REVENUE					
Motor Vehicle Receipts	$234,484	$236,063	$249,479	$251,506	$242,912
Licenses, Permits & Fees	137,284	138,390	145,429	143,867	144,028
Interest Income	4,138	6,771	6,946	8,159	8,995
Federal Grants	12,416	12,100	12,115	12,181	12,168
Transfer from Other Funds	95,245	-76,500	41,197	-	-
Transfer to Other Funds	(6,500)	(6,500)	(6,500)	(6,500)	(6,500)
Transfer to TSB	(15,000)	(15,000)	(15,000)	-	-
Less Refunds of Payments	(3,154)	(3,614)	(3,871)	(3,384)	(4,103)
Total – Other Revenue	$458,912	$291,710	$429,795	$405,829	$397,499
GRAND TOTAL	$1,232,487	$1,255,691	$1,360,911	$1,352,813	$1,394,403
TAXES	**% of Total**	**% of Total**	**% of Total**	**% of Total**	**% of Total**
Motor Fuels	40.67	40.46	37.96	38.31	35.75
Oil Companies	16.18	30.32	24.83	18.48	17.09
Sales and Use Tax	-	-	-	8.06	13.51
DMV Sales	6.41	6.55	6.16	6.44	6.09
Less Refunds of Taxes	(0.49)	(0.56)	(0.53)	(1.29)	(0.95)
Total – Taxes Less Refunds	62.77	76.77	68.42	70.00	71.49
OTHER REVENUE					
Motor Vehicle Receipts	19.03	18.8	18.33	18.59	17.42
Licenses, Permits & Fees	11.14	11.02	10.69	10.63	10.33
Interest Income	0.34	0.54	0.51	0.60	0.65
Federal Grants	1.01	0.96	0.89	0.90	0.87
Transfer from Other Funds	7.73	(6.09)	3.03	-	-
Transfer to Other Funds	(0.53)	(0.52)	(0.48)	(0.48)	(0.47)
Transfer to TSB	(1.22)	(1.19)	(1.1)	-	-
Less Refunds of Payments	(0.26)	(0.29)	(0.28)	(0.25)	(0.29)
Total - Other Revenue	37.23	23.23	31.58	30.00	28.51
GRAND TOTAL	100.00	100.00	100.00	100.00	100.00

(1) Beginning in FY 2014, Federal Grants within the General Fund reflect the conversion to net budgeting of the Medicaid account. In addition, in reporting FY 2014 results the Comptroller included $598.5 million from the proceeds of GAAP Conversion Bonds within the revenue schedule. Since these proceeds were reserved for use in mitigating the cumulative GAAP deficit, the Office of Policy and Management has not included the $598.5 million within the General Fund revenue schedule.

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APPENDIX

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Connecticut Resident Population Census Counts

	Population 2000	Rank	Population 2010	Rank	2000-2010 Change	% Chg.	2016 DPH* Est
Total	3,405,565		3,574,097		168,532	4.9	3,576,452
Andover	3,036	147	3,303	147	267	8.8	3,252
Ansonia	18,554	57	19,249	60	695	3.7	18,732
Ashford	4,098	135	4,317	136	219	5.3	4,236
Avon	15,832	68	18,098	65	2,266	14.3	18,364
Barkhamsted	3,494	143	3,799	141	305	8.7	3,664
Beacon Falls	5,246	125	6,049	123	803	15.3	6,095
Berlin	18,215	59	19,866	54	1,651	9.1	20,499
Bethany	5,040	126	5,563	126	523	10.4	5,488
Bethel	18,067	61	18,584	62	517	2.9	19,627
Bethlehem	3,422	144	3,607	143	185	5.4	3,447
Bloomfield	19,587	52	20,486	52	899	4.6	20,642
Bolton	5,017	127	4,980	131	-37	-0.7	4,930
Bozrah	2,357	153	2,627	152	270	11.5	2,578
Branford	28,683	32	28,026	37	-657	-2.3	28,028
Bridgeport	139,529	1	144,229	1	4,700	3.4	145,936
Bridgewater	1,824	160	1,727	162	-97	-5.3	1,648
Bristol	60,062	11	60,477	13	415	0.7	60,147
Brookfield	15,664	69	16,452	71	788	5.0	17,098
Brooklyn	7,173	113	8,210	110	1,037	14.5	8,205
Burlington	8,190	108	9,301	104	1,111	13.6	9,614
Canaan	1,081	168	1,234	168	153	14.2	1,177
Canterbury	4,692	131	5,132	130	440	9.4	5,065
Canton	8,840	101	10,292	95	1,452	16.4	10,287
Chaplin	2,250	155	2,305	156	55	2.4	2,246
Cheshire	28,543	33	29,261	32	718	2.5	29,282
Chester	3,743	141	3,994	139	251	6.7	4,255
Clinton	13,094	81	13,260	82	166	1.3	12,961
Colchester	14,551	74	16,068	72	1,517	10.4	16,061
Colebrook	1,471	165	1,485	165	14	1.0	1,430
Columbia	4,971	129	5,485	127	514	10.3	5,433
Cornwall	1,434	166	1,420	167	-14	-1.0	1,380
Coventry	11,504	87	12,435	87	931	8.1	12,433
Cromwell	12,871	83	14,005	79	1,134	8.8	13,960
Danbury	74,848	7	80,893	7	6,045	8.1	84,992
Darien	19,607	51	20,732	51	1,125	5.7	21,744
Deep River	4,610	133	4,629	133	19	0.4	4,482
Derby	12,391	84	12,902	84	511	4.1	12,631
Durham	6,627	116	7,388	116	761	11.5	7,255
East Granby	4,745	130	5,148	129	403	8.5	5,170
East Haddam	8,333	105	9,126	106	793	9.5	9,023
East Hampton	13,352	78	12,959	83	-393	-2.9	12,869
East Hartford	49,575	19	51,252	19	1,677	3.4	50,237
East Haven	28,189	35	29,257	33	1,068	3.8	28,807

Connecticut Resident Population Census Counts

	Population 2000	Rank	Population 2010	Rank	2000-2010 Change	% Chg.	2016 DPH* Est
East Lyme	18,118	60	19,159	61	1,041	5.7	18,886
East Windsor	9,818	96	11,162	94	1,344	13.7	11,355
Eastford	1,618	163	1,749	161	131	8.1	1,750
Easton	7,272	111	7,490	115	218	3.0	7,561
Ellington	12,921	82	15,602	74	2,681	20.7	16,071
Enfield	45,212	20	44,654	22	-558	-1.2	44,368
Essex	6,505	117	6,683	120	178	2.7	6,539
Fairfield	57,340	13	59,404	14	2,064	3.6	61,160
Farmington	23,641	44	25,340	44	1,699	7.2	25,524
Franklin	1,835	159	1,922	159	87	4.7	1,955
Glastonbury	31,876	29	34,427	29	2,551	8.0	34,584
Goshen	2,697	151	2,976	150	279	10.3	2,891
Granby	10,347	93	11,282	92	935	9.0	11,247
Greenwich	61,101	10	61,171	10	70	0.1	62,359
Griswold	10,807	89	11,951	90	1,144	10.6	11,719
Groton	39,907	23	40,115	25	208	0.5	39,261
Guilford	21,398	49	22,375	50	977	4.6	22,277
Haddam	7,157	114	8,346	109	1,189	16.6	8,260
Hamden	56,913	14	60,960	11	4,047	7.1	61,125
Hampton	1,758	161	1,863	160	105	6.0	1,837
Hartford	121,578	3	124,775	3	3,197	2.6	123,243
Hartland	2,012	158	2,114	158	102	5.1	2,117
Harwinton	5,283	124	5,642	125	359	6.8	5,466
Hebron	8,610	104	9,686	99	1,076	12.5	9,529
Kent	2,858	150	2,979	149	121	4.2	2,819
Killingly	16,472	67	17,370	68	898	5.5	17,069
Killingworth	6,018	121	6,525	121	507	8.4	6,419
Lebanon	6,907	115	7,308	117	401	5.8	7,197
Ledyard	14,687	72	15,051	77	364	2.5	14,911
Lisbon	4,069	136	4,338	135	269	6.6	4,281
Litchfield	8,316	106	8,466	108	150	1.8	8,175
Lyme	2,016	157	2,406	154	390	19.3	2,355
Madison	17,858	64	18,269	64	411	2.3	18,151
Manchester	54,740	15	58,241	15	3,501	6.4	57,873
Mansfield	20,720	50	26,543	41	5,823	28.1	25,969
Marlborough	5,709	123	6,404	122	695	12.2	6,402
Meriden	58,244	12	60,868	12	2,624	4.5	59,622
Middlebury	6,451	118	7,575	114	1,124	17.4	7,641
Middlefield	4,203	134	4,425	134	222	5.3	4,387
Middletown	43,167	21	47,648	20	4,481	10.4	46,544
Milford	52,305	17	52,759	17	454	0.9	54,054
Monroe	19,247	54	19,479	59	232	1.2	19,658
Montville	18,546	58	19,571	57	1,025	5.5	19,231
Morris	2,301	154	2,388	155	87	3.8	2,279

Connecticut Resident Population Census Counts

	Population 2000	Rank	Population 2010	Rank	2000-2010 Change	% Chg.	2016 DPH* Est.
Naugatuck	30,989	30	31,862	30	873	2.8	31,392
New Britain	71,538	8	73,206	8	1,668	2.3	72,558
New Canaan	19,395	53	19,738	55	343	1.8	20,280
New Fairfield	13,953	75	13,881	81	-72	-0.5	14,005
New Hartford	6,088	120	6,970	118	882	14.5	6,733
New Haven	123,626	2	129,779	2	6,153	5.0	129,934
New London	25,671	40	27,620	38	1,949	7.6	26,984
New Milford	27,121	37	28,142	36	1,021	3.8	27,151
Newington	29,306	31	30,562	31	1,256	4.3	30,423
Newtown	25,031	41	27,560	39	2,529	10.1	27,865
Norfolk	1,660	162	1,709	164	49	3.0	1,632
North Branford	13,906	76	14,407	78	501	3.6	14,198
North Canaan	3,350	145	3,315	146	-35	-1.0	3,186
North Haven	23,035	46	24,093	47	1,058	4.6	23,709
North Stonington	4,991	128	5,297	128	306	6.1	5,271
Norwalk	82,951	6	85,603	6	2,652	3.2	88,438
Norwich	36,117	26	40,493	24	4,376	12.1	39,556
Old Lyme	7,406	110	7,603	113	197	2.7	7,469
Old Saybrook	10,367	92	10,242	96	-125	-1.2	10,093
Orange	13,233	79	13,956	80	723	5.5	13,912
Oxford	9,821	95	12,683	85	2,862	29.1	12,984
Plainfield	14,619	73	15,405	75	786	5.4	15,067
Plainville	17,328	66	17,716	67	388	2.2	17,677
Plymouth	11,634	86	12,243	88	609	5.2	11,749
Pomfret	3,798	140	4,247	137	449	11.8	4,149
Portland	8,732	102	9,508	101	776	8.9	9,349
Preston	4,688	132	4,726	132	38	0.8	4,685
Prospect	8,707	103	9,405	103	698	8.0	9,755
Putnam	9,002	98	9,584	100	582	6.5	9,333
Redding	8,270	107	9,158	105	888	10.7	9,216
Ridgefield	23,643	43	24,638	46	995	4.2	25,063
Rocky Hill	17,966	62	19,709	56	1,743	9.7	20,119
Roxbury	2,136	156	2,262	157	126	5.9	2,176
Salem	3,858	138	4,151	138	293	7.6	4,167
Salisbury	3,977	137	3,741	142	-236	-5.9	3,618
Scotland	1,556	164	1,726	163	170	10.9	1,678
Seymour	15,454	70	16,540	70	1,086	7.0	16,553
Sharon	2,968	149	2,782	151	-186	-6.3	2,714
Shelton	38,101	25	39,559	26	1,458	3.8	41,334
Sherman	3,827	139	3,581	144	-246	-6.4	3,641
Simsbury	23,234	45	23,511	48	277	1.2	24,407
Somers	10,417	91	11,444	91	1,027	9.9	11,092
South Windsor	24,412	42	25,709	43	1,297	5.3	25,737
Southbury	18,567	56	19,904	53	1,337	7.2	19,572

Connecticut Resident Population Census Counts

	Population 2000	Rank	Population 2010	Rank	2000-2010 Change	% Chg.	2016 DPH* Est.
Southington	39,728	24	43,069	23	3,341	8.4	43,685
Sprague	2,971	148	2,984	148	13	0.4	2,921
Stafford	11,307	88	12,087	89	780	6.9	11,758
Stamford	117,083	4	122,643	4	5,560	4.7	129,113
Sterling	3,099	146	3,830	140	731	23.6	3,741
Stonington	17,906	63	18,545	63	639	3.6	18,647
Stratford	49,976	18	51,384	18	1,408	2.8	52,148
Suffield	13,552	77	15,735	73	2,183	16.1	15,625
Thomaston	7,503	109	7,887	112	384	5.1	7,595
Thompson	8,878	100	9,458	102	580	6.5	9,266
Tolland	13,146	80	15,052	76	1,906	14.5	14,791
Torrington	35,202	27	36,383	27	1,181	3.4	34,646
Trumbull	34,243	28	36,018	28	1,775	5.2	36,237
Union	693	169	854	169	161	23.2	840
Vernon	28,063	36	29,179	34	1,116	4.0	29,148
Voluntown	2,528	152	2,603	153	75	3.0	2,565
Wallingford	43,026	22	45,135	21	2,109	4.9	44,660
Warren	1,254	167	1,461	166	207	16.5	1,408
Washington	3,596	142	3,578	145	-18	-0.5	3,452
Waterbury	107,271	5	110,366	5	3,095	2.9	108,272
Waterford	19,152	55	19,517	58	365	1.9	19,101
Watertown	21,661	48	22,514	49	853	3.9	21,790
West Hartford	63,589	9	63,268	9	-321	-0.5	62,903
West Haven	52,360	16	55,564	16	3,204	6.1	54,516
Westbrook	6,292	119	6,938	119	646	10.3	6,933
Weston	10,037	94	10,179	97	142	1.4	10,302
Westport	25,749	39	26,391	42	642	2.5	27,840
Wethersfield	26,271	38	26,668	40	397	1.5	26,195
Willington	5,959	122	6,041	124	82	1.4	5,872
Wilton	17,633	65	18,062	66	429	2.4	18,560
Winchester	10,664	90	11,242	93	578	5.4	10,754
Windham	22,857	47	25,268	45	2,411	10.5	24,727
Windsor	28,237	34	29,044	35	807	2.9	28,875
Windsor Locks	12,043	85	12,498	86	455	3.8	12,512
Wolcott	15,215	71	16,680	69	1,465	9.6	16,643
Woodbridge	8,983	99	8,990	107	7	0.1	8,842
Woodbury	9,198	97	9,975	98	777	8.4	9,591
Woodstock	7,221	112	7,964	111	743	10.3	7,823

* Connecticut Department of Public Health

Source: U.S. Bureau of the Census, April 1, 2000 & 2010
Department of Public Health, "Est. Population in Connecticut as of July 1, 2016"

MAJOR U.S. ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 1
U.S. ECONOMIC VARIABLES

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Gross Domestic Product ($B)	14,684.1	14,529.3	14,630.1	15,246.8	15,867.0	16,385.5	17,025.4	17,831.5	18,344.5	18,985.6
Percent Change	3.7%	-1.1%	0.7%	4.2%	4.1%	3.3%	3.9%	4.7%	2.9%	3.5%
Real GDP	14,945.8	14,549.8	14,573.8	14,913.8	15,216.2	15,444.6	15,782.2	16,292.6	16,577.6	16,891.0
Percent Change	1.5%	-2.6%	0.2%	3.0%	2.0%	1.5%	2.2%	3.2%	1.7%	1.9%
GDP Deflator (2009=100)	98.2	99.9	100.4	102.2	104.3	106.1	107.9	109.4	110.7	112.4
Percent Change	2.2%	1.6%	0.5%	1.8%	2.0%	1.7%	1.7%	1.5%	1.1%	1.6%
Housing Starts (K)	1,132.4	646.3	594.0	569.7	684.4	876.7	955.0	1,055.5	1,149.1	1,200.6
Percent Change	-26.8%	-42.9%	-8.1%	-4.1%	20.1%	28.1%	8.9%	10.5%	8.9%	4.5%
Unemployment Rate	5.0%	7.6%	9.8%	9.3%	8.5%	7.8%	6.8%	5.7%	5.0%	4.7%
New Vehicle Sales (M)	15.3	10.6	11.2	12.2	13.6	15.1	15.9	16.9	17.5	17.3
Percent Change	-6.3%	-30.5%	5.3%	9.3%	11.4%	10.5%	5.7%	5.9%	3.8%	-1.1%
Consumer Price Index ('82-'84=100)	211.7	214.6	216.8	221.1	227.6	231.4	235.0	236.7	238.3	242.7
Percent Change	3.7%	1.4%	1.0%	2.0%	2.9%	1.7%	1.6%	0.7%	0.7%	1.9%
Industrial Production Index ('07=100)	104.5	93.4	91.3	95.9	98.8	100.9	103.4	105.4	103.5	103.8
Percent Change	1.2%	-10.6%	-2.3%	5.1%	3.0%	2.2%	2.4%	1.9%	-1.8%	0.3%
Personal Income ($B)	12,329.8	12,275.3	12,212.0	12,883.2	13,555.6	14,026.4	14,394.7	15,155.4	15,729.0	16,357.8
Percent Change	5.4%	-0.4%	-0.5%	5.5%	5.2%	3.5%	2.6%	5.3%	3.8%	4.0%
Real Personal Income ($B in 2009=100)	12,486.6	12,282.4	12,094.7	12,537.8	12,878.8	13,125.7	13,280.1	13,927.7	14,327.3	14,457.5
Percent Change	2.2%	-1.6%	-1.5%	3.7%	2.7%	1.9%	1.2%	4.9%	2.9%	0.9%
Disposable Personal Income ($B)	10,804.0	10,953.8	11,041.3	11,529.1	12,078.2	12,424.7	12,669.6	13,355.0	13,815.5	14,162.7
Percent Change	5.2%	1.4%	0.8%	4.4%	4.8%	2.9%	2.0%	5.4%	3.4%	2.5%
Disposable Personal Income ($B in 2009$)	10,941.4	10,960.9	10,935.6	11,220.8	11,475.4	11,627.3	11,690.1	12,219.2	12,556.7	12,671.5
Percent Change	2.0%	0.2%	-0.2%	2.6%	2.3%	1.3%	0.5%	4.5%	2.8%	0.9%

MAJOR U.S. ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 2
U.S. PERSONAL INCOME
(BILLIONS OF DOLLARS)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Personal Income	12,329.8	12,275.3	12,212.0	12,883.2	13,555.6	14,026.4	14,394.7	15,155.4	15,729.0	16,128.3
Percent Change	5.4%	-0.4%	-0.5%	5.5%	5.2%	3.5%	2.6%	5.3%	3.8%	2.5%
Wages & Salaries	6,483.1	6,385.9	6,281.0	6,526.0	6,763.3	7,025.8	7,280.2	7,662.5	8,018.2	8,206.1
Percent Change	3.9%	-1.5%	-1.6%	3.9%	3.6%	3.9%	3.6%	5.3%	4.6%	2.3%
Manufacturing Income	749.0	699.7	658.4	696.1	720.3	739.5	761.0	793.2	817.0	824.9
Percent Change	0.5%	-6.6%	-5.9%	5.7%	3.5%	2.7%	2.9%	4.2%	3.0%	1.0%
Nonmanufacturing Inc.	5,734.1	5,686.2	5,622.5	5,830.0	6,043.0	6,286.4	6,519.3	6,869.4	7,201.2	7,381.2
Percent Change	4.4%	-0.8%	-1.1%	3.7%	3.7%	4.0%	3.7%	5.4%	4.8%	2.5%
Other Labor Income	1,529.2	1,541.8	1,555.0	1,612.9	1,654.6	1,702.8	1,750.5	1,805.4	1,874.7	1,923.3
Percent Change	3.8%	0.8%	0.9%	3.7%	2.6%	2.9%	2.8%	3.1%	3.8%	2.6%
Proprietor's Income	1,003.8	982.8	1,011.4	1,079.2	1,200.0	1,271.6	1,301.3	1,357.0	1,400.4	1,388.4
Percent Change	-1.1%	-2.1%	2.9%	6.7%	11.2%	6.0%	2.3%	4.3%	3.2%	-0.9%
Farm Income	46.2	36.1	40.6	62.4	69.1	78.3	77.8	50.6	36.2	35.0
Percent Change	27.7%	-21.7%	12.2%	53.8%	10.7%	13.4%	-0.7%	-35.0%	-28.4%	-3.4%
Nonfarm Income	957.7	946.7	970.9	1,016.8	1,130.9	1,193.3	1,223.5	1,306.4	1,364.2	1,353.4
Percent Change	-2.1%	-1.2%	2.6%	4.7%	11.2%	5.5%	2.5%	6.8%	4.4%	-0.8%
Rental Income	216.4	302.3	369.2	442.9	510.8	543.5	586.4	631.9	684.7	719.3
Percent Change	13.5%	39.7%	22.2%	19.9%	15.3%	6.4%	7.9%	7.8%	8.4%	5.1%
Personal Dividend Inc.	839.6	689.6	503.8	612.0	743.3	835.2	855.8	959.6	941.7	952.8
Percent Change	8.6%	-17.9%	-26.9%	21.5%	21.5%	12.4%	2.5%	12.1%	-1.9%	1.2%
Personal Interest Income	1,371.2	1,326.9	1,217.7	1,209.1	1,259.6	1,280.2	1,275.7	1,299.6	1,308.9	1,401.6
Percent Change	6.9%	-3.2%	-8.2%	-0.7%	4.2%	1.6%	-0.3%	1.9%	0.7%	7.1%
Transfer Payments	1,862.4	2,022.9	2,245.6	2,353.7	2,356.0	2,395.3	2,472.9	2,618.2	2,727.0	2,803.0
Percent Change	11.5%	8.6%	11.0%	4.8%	0.1%	1.7%	3.2%	5.9%	4.2%	2.8%

MAJOR U.S. ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 3
U.S. PERSONAL INCOME AND ITS DISPOSITION
(BILLIONS OF DOLLARS)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Less:										
Contributions to										
Social Insurance	975.9	976.7	971.5	952.6	932.0	1,028.0	1,128.1	1,178.8	1,226.6	1,266.1
Percent Change	3.5%	0.1%	-0.5%	-1.9%	-2.2%	10.3%	9.7%	4.5%	4.1%	3.2%
Equals:										
Personal Income	12,329.8	12,275.3	12,212.0	12,883.2	13,555.6	14,026.4	14,394.7	15,155.4	15,729.0	16,128.3
Percent Change	5.4%	-0.4%	-0.5%	5.5%	5.2%	3.5%	2.6%	5.3%	3.8%	2.5%
Less:										
Personal Taxes	1,525.7	1,321.4	1,170.7	1,354.1	1,477.4	1,601.7	1,723.0	1,871.9	1,948.3	1,987.8
Percent Change	6.9%	-13.4%	-11.4%	15.7%	9.1%	8.4%	7.6%	8.6%	4.1%	2.0%
Equals:										
Disposable Income ($B)	10,804.0	10,953.8	11,041.3	11,529.1	12,078.2	12,424.7	12,671.6	13,283.5	13,780.7	14,140.5
Percent Change	5.2%	1.4%	0.8%	4.4%	4.8%	2.9%	2.0%	4.8%	3.7%	2.6%
Less:										
Personal Outlays	10,400.2	10,314.1	10,425.6	10,851.3	11,291.6	11,604.2	12,006.1	12,532.8	12,957.3	13,494.0
Percent Change	4.5%	-0.8%	1.1%	4.1%	4.1%	2.8%	3.5%	4.4%	3.4%	4.1%
Equals:										
Personal Savings	403.8	639.8	615.7	677.8	786.6	820.5	665.5	750.7	823.4	646.6
Percent Change	27.0%	58.4%	-3.8%	10.1%	16.1%	4.3%	-18.9%	12.8%	9.7%	-21.5%
Personal Savings Rate	3.7%	5.8%	5.6%	5.9%	6.5%	6.6%	5.3%	5.7%	6.0%	4.6%

MAJOR U.S. ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 4
U.S. EMPLOYMENT AND THE LABOR FORCE
(MILLIONS OF JOBS)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Establishment Employ.	138.2	134.4	130.2	131.0	133.1	135.2	137.6	140.4	143.1	145.4
Percent Change	0.6%	-2.7%	-3.1%	0.6%	1.6%	1.6%	1.7%	2.1%	1.9%	1.6%
Manufacturing	13.7	12.7	11.5	11.6	11.8	12.0	12.1	12.3	12.3	12.4
Percent Change	-2.3%	-7.7%	-8.9%	0.9%	1.8%	1.2%	0.9%	1.6%	0.3%	0.4%
Nonmanufacturing	124.4	121.7	118.6	119.4	121.3	123.2	125.5	128.2	130.8	133.1
Percent Change	0.9%	-2.2%	-2.5%	0.6%	1.6%	1.6%	1.8%	2.1%	2.1%	1.7%
Construction & Mining	8.2	7.4	6.3	6.2	6.4	6.6	6.9	7.2	7.3	7.5
Percent Change	-2.3%	-10.3%	-14.0%	-1.5%	3.2%	2.5%	4.1%	4.7%	1.8%	2.2%
Information	3.0	2.9	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.8
Percent Change	-0.3%	-4.1%	-5.4%	-2.0%	-0.5%	0.4%	1.3%	0.7%	1.0%	-0.3%
Public Utility, Trade & Transportation	26.6	25.6	24.6	24.8	25.3	25.6	26.1	26.7	27.1	27.3
Percent Change	0.6%	-3.9%	-3.8%	0.9%	1.9%	1.3%	1.9%	2.1%	1.8%	0.7%
Finance, Insurance & Real Estate	8.3	8.0	7.7	7.7	7.7	7.8	7.9	8.0	8.2	8.4
Percent Change	-1.1%	-3.1%	-3.6%	-0.7%	0.7%	1.3%	1.1%	1.6%	1.9%	2.1%
Services	55.9	55.3	54.6	55.7	57.2	58.6	60.0	61.6	63.3	64.8
Percent Change	1.8%	-1.2%	-1.1%	1.9%	2.7%	2.5%	2.4%	2.6%	2.9%	2.3%
Professional & Business	18.0	17.1	16.5	17.0	17.6	18.2	18.8	19.4	20.0	20.4
Percent Change	0.9%	-4.7%	-3.6%	3.1%	3.6%	3.3%	3.1%	3.1%	3.1%	2.4%
Education & Health	19.0	19.4	19.8	20.1	20.6	20.9	21.2	21.7	22.4	22.9
Percent Change	3.0%	2.6%	1.8%	1.7%	2.1%	1.8%	1.4%	2.3%	3.1%	2.2%
Leisure & Hospitality	13.5	13.2	13.0	13.2	13.6	14.0	14.5	14.9	15.3	15.8
Percent Change	1.6%	-1.9%	-1.9%	1.5%	2.9%	3.2%	3.4%	2.9%	2.9%	2.8%
Other Services	5.5	5.4	5.3	5.3	5.4	5.5	5.5	5.6	5.7	5.7
Percent Change	0.9%	-1.3%	-2.0%	0.1%	1.2%	1.0%	1.4%	1.2%	1.1%	1.1%
Government	22.4	22.6	22.6	22.3	22.0	21.9	21.8	21.9	22.1	22.3
Percent Change	1.2%	0.9%	0.0%	-1.3%	-1.4%	-0.4%	-0.2%	0.5%	0.5%	1.1%
Civilian Labor Force	153.7	154.6	153.9	153.6	154.3	155.3	155.5	156.6	158.0	159.8
Percent Change	0.8%	0.6%	-0.4%	-0.2%	0.4%	0.7%	0.1%	0.7%	0.9%	1.1%
Unemployment Rate	5.0%	7.6%	9.8%	9.3%	8.5%	7.8%	6.8%	5.7%	5.0%	4.7%

MAJOR U.S. ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 5
PRICE INDICES FOR URBAN CONSUMERS
(1982-1984 = 100)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All Items	211.7	214.6	216.8	221.1	227.6	231.4	235.0	236.7	238.3	242.7
Percent Change	3.7%	1.4%	1.0%	2.0%	2.9%	1.7%	1.6%	0.7%	0.7%	1.9%
Food & Beverages	208.1	218.2	218.6	223.0	231.5	235.4	239.1	245.1	247.7	248.2
Percent Change	4.6%	4.8%	0.2%	2.0%	3.8%	1.7%	1.5%	2.5%	1.1%	
Housing	212.8	217.5	216.5	217.2	221.0	224.9	230.2	235.6	240.7	247.8
Percent Change	3.1%	2.2%	-0.5%	0.3%	1.7%	1.8%	2.4%	2.3%	2.1%	3.0%
Energy	226.6	208.2	206.4	227.9	245.9	245.8	246.6	221.2	192.5	198.2
Percent Change	14.1%	-8.1%	-0.9%	10.4%	7.9%	0.0%	0.3%	-10.3%	-12.9%	2.9%
Commodities	172.0	170.9	173.2	178.7	186.4	187.9	188.1	184.5	180.2	180.3
Percent Change	4.2%	-0.6%	1.3%	3.2%	4.3%	0.8%	0.1%	-1.9%	-2.3%	0.0%
Apparel	118.6	119.4	120.1	119.8	124.9	127.0	127.6	126.8	125.9	126.2
Percent Change	-0.8%	0.7%	0.6%	-0.3%	4.3%	1.7%	0.5%	-0.6%	-0.7%	
Transportation	192.8	182.6	189.0	202.9	215.5	217.9	217.9	206.2	196.1	198.5
Percent Change	6.4%	-5.3%	3.5%	7.4%	6.2%	1.1%	0.0%	-5.4%	-4.9%	1.2%
Services	251.0	258.1	260.1	263.2	268.6	274.6	281.5	288.3	295.6	304.2
Percent Change	3.3%	2.8%	0.8%	1.2%	2.0%	2.3%	2.5%	2.4%	2.5%	2.9%
Medical Care	358.6	369.4	382.2	394.0	407.4	420.6	430.2	440.9	453.9	471.0
Percent Change	4.6%	3.0%	3.5%	3.1%	3.4%	3.2%	2.3%	2.5%	2.9%	3.8%
Other Goods & Services	338.9	355.3	377.1	384.6	390.7	397.8	404.7	411.2	418.9	427.8
Percent Change	3.5%	4.8%	6.1%	2.0%	1.6%	1.8%	1.7%	1.6%	1.9%	2.1%

MAJOR CONNECTICUT ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 6
PERSONAL INCOME
(BILLIONS OF DOLLARS)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Personal Income	211.98	214.91	218.63	226.36	230.65	232.70	234.26	242.45	247.10	248.99
Percent Change	7.2%	1.4%	1.7%	3.5%	1.9%	0.9%	0.7%	3.5%	1.9%	0.8%
Disposable Personal Income	177.45	185.15	191.81	196.44	198.41	197.89	197.23	204.13	209.65	209.90
Percent Change	7.4%	4.3%	3.6%	2.4%	1.0%	-0.3%	-0.3%	3.5%	2.7%	0.1%
Total Wages	101.24	98.61	96.47	100.72	102.23	104.84	107.21	110.57	113.82	112.57
Percent Change	3.5%	-2.6%	-2.2%	4.4%	1.5%	2.6%	2.3%	3.1%	2.9%	-1.1%
Manufacturing Wages	13.32	12.64	11.88	12.74	12.90	13.20	13.21	12.89	12.63	12.60
Percent Change	2.8%	-5.1%	-6.0%	7.2%	1.3%	2.3%	0.1%	-2.4%	-2.0%	-0.3%
Nonmanufacturing Wages	87.92	85.97	84.59	87.98	89.33	91.65	94.00	97.68	101.18	99.97
Percent Change	3.7%	-2.2%	-1.6%	4.0%	1.5%	2.6%	2.6%	3.9%	3.6%	-1.2%
Other Labor Income	22.53	22.68	22.66	23.54	23.52	23.71	24.03	24.44	25.08	25.18
Percent Change	5.4%	0.7%	-0.1%	3.9%	-0.1%	0.8%	1.3%	1.7%	2.6%	0.4%
Proprietor's Income	24.44	30.59	36.45	33.54	31.10	27.17	26.38	27.70	28.73	25.60
Percent Change	18.6%	25.2%	19.1%	-8.0%	-7.3%	-12.6%	-2.9%	5.0%	3.7%	-10.9%
Property Income	54.69	51.39	48.80	52.92	57.59	61.60	62.28	64.67	63.86	69.26
Percent Change	7.9%	-6.0%	-5.0%	8.4%	8.8%	7.0%	1.1%	3.8%	-1.2%	8.4%
Transfer Payments Less Social Insurance	9.09	11.64	14.25	15.65	16.21	15.37	14.36	15.07	15.61	16.39
Percent Change	25.1%	28.1%	22.5%	9.8%	3.6%	-5.2%	-6.6%	5.0%	3.6%	5.0%
Transfer Payments	23.13	25.77	28.20	29.25	29.27	29.76	30.06	31.22	32.20	33.16
Percent Change	11.3%	11.4%	9.4%	3.8%	0.0%	1.7%	1.0%	3.8%	3.2%	3.0%
Social Insurance	14.04	14.13	13.94	13.60	13.06	14.39	15.71	16.15	16.59	16.77
Percent Change	3.8%	0.6%	-1.3%	-2.4%	-4.0%	10.2%	9.2%	2.8%	2.8%	1.1%
Adjustment for Residence	9.35	9.36	10.32	11.47	12.53	13.10	12.87	13.24	13.89	14.53
Percent Change	11.1%	0.1%	10.3%	11.1%	9.3%	4.5%	-1.8%	2.9%	5.0%	4.6%

MAJOR CONNECTICUT ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 7
DEFLATED PERSONAL INCOME
(BILLIONS OF DOLLARS)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Personal Income	214.70	215.04	216.54	220.32	219.14	217.76	216.17	221.77	224.55	219.46
Percent Change	4.0%	0.2%	0.7%	1.7%	-0.5%	-0.6%	-0.7%	2.6%	1.3%	-2.3%
Disposable Personal Income	179.72	185.27	189.97	191.20	188.51	185.18	182.00	186.72	190.52	185.01
Percent Change	4.2%	3.1%	2.5%	0.6%	-1.4%	-1.8%	-1.7%	2.6%	2.0%	-2.9%
Total Wages	102.53	98.67	95.54	98.03	97.13	98.11	98.94	101.14	103.43	99.22
Percent Change	0.5%	-3.8%	-3.2%	2.6%	-0.9%	1.0%	0.8%	2.2%	2.3%	-4.1%
Manufacturing Wages	13.49	12.64	11.77	12.40	12.26	12.35	12.19	11.79	11.48	11.10
Percent Change	-0.3%	-6.3%	-6.9%	5.3%	-1.1%	0.8%	-1.3%	-3.3%	-2.6%	-3.3%
Nonmanufacturing Wages	89.04	86.02	83.78	85.63	84.88	85.76	86.75	89.35	91.95	88.11
Percent Change	0.6%	-3.4%	-2.6%	2.2%	-0.9%	1.0%	1.1%	3.0%	2.9%	-4.2%
Other Labor Income	22.82	22.70	22.44	22.91	22.35	22.19	22.17	22.36	22.79	22.19
Percent Change	2.2%	-0.6%	-1.1%	2.1%	-2.5%	-0.7%	-0.1%	0.8%	1.9%	-2.6%
Proprietor's Income	24.75	30.61	36.10	32.64	29.55	25.43	24.34	25.33	26.11	22.56
Percent Change	15.1%	23.7%	17.9%	-9.6%	-9.5%	-13.9%	-4.3%	4.1%	3.1%	-13.6%
Property Income	55.39	51.42	48.34	51.50	54.71	57.65	57.48	59.15	58.03	61.04
Percent Change	4.7%	-7.2%	-6.0%	6.5%	6.2%	5.4%	-0.3%	2.9%	-1.9%	5.2%
Transfer Payments Less Social Insurance	9.20	11.65	14.12	15.23	15.40	14.38	13.25	13.79	14.19	14.45
Percent Change	21.4%	26.5%	21.2%	7.9%	1.1%	-6.6%	-7.9%	4.1%	2.9%	1.8%
Transfer Payments	23.43	25.78	27.93	28.47	27.81	27.85	27.74	28.55	29.26	29.23
Percent Change	8.0%	10.1%	8.3%	2.0%	-2.3%	0.1%	-0.4%	2.9%	2.5%	-0.1%
Social Insurance	14.22	14.14	13.81	13.24	12.40	13.46	14.49	14.77	15.08	14.78
Percent Change	0.8%	-0.6%	-2.3%	-4.1%	-6.3%	8.5%	7.7%	1.9%	2.1%	-2.0%
Adjustment for Residence	9.47	9.36	10.22	11.16	11.90	12.26	11.87	12.11	12.63	12.81
Percent Change	7.8%	-1.1%	9.1%	9.2%	6.7%	3.0%	-3.1%	2.0%	4.3%	1.4%

Note: All categories are deflated by consumer price index

MAJOR CONNECTICUT ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 8
MANUFACTURING EMPLOYMENT
(THOUSANDS -Seasonally Adjusted)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Manufacturing	186.40	177.58	163.39	163.33	162.90	161.05	158.58	156.87	156.57	156.33
Percent Change	-1.7%	-4.7%	-8.0%	0.0%	-0.3%	-1.1%	-1.5%	-1.1%	-0.2%	-0.2%
Transportation Equip.	43.93	43.94	42.41	42.11	42.31	41.76	40.62	40.18	41.14	42.69
Percent Change	1.0%	0.0%	-3.5%	-0.7%	0.5%	-1.3%	-2.7%	-1.1%	2.4%	3.8%
Fabricated Metals	33.38	31.60	28.19	28.40	28.80	29.66	30.06	29.38	29.17	29.30
Percent Change	-0.8%	-5.3%	-10.8%	0.7%	1.4%	3.0%	1.3%	-2.2%	-0.7%	0.4%
Electrical Equip. & Appl.	11.16	10.58	9.72	9.89	9.85	9.70	9.30	8.78	8.41	8.09
Percent Change	3.1%	-5.2%	-8.2%	1.8%	-0.4%	-1.5%	-4.2%	-5.5%	-4.2%	-3.9%
Chemicals	12.08	11.00	9.82	9.60	8.74	8.05	7.93	7.83	7.65	7.15
Percent Change	-8.4%	-8.9%	-10.8%	-2.2%	-8.9%	-7.9%	-1.4%	-1.3%	-2.2%	-6.6%
Printing & Support	7.49	6.62	5.82	5.68	5.58	5.26	5.11	5.12	5.21	5.39
Percent Change	-3.9%	-11.6%	-12.1%	-2.5%	-1.7%	-5.7%	-3.0%	0.2%	1.9%	3.3%
Industrial Machinery	18.01	17.03	15.33	14.88	14.71	14.27	13.99	14.13	13.84	13.39
Percent Change	-0.8%	-5.4%	-10.0%	-2.9%	-1.2%	-2.9%	-2.0%	1.0%	-2.1%	-3.2%
All Other	60.35	56.80	52.11	52.78	52.91	52.34	51.57	51.44	51.14	50.33
Percent Change	-3.4%	-5.9%	-8.3%	1.3%	0.2%	-1.1%	-1.5%	-0.2%	-0.6%	-1.6%

MAJOR CONNECTICUT ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 9
NONMANUFACTURING EMPLOYMENT
(THOUSANDS -Seasonally Adjusted)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Nonmanufacturing	1,517.7	1,485.0	1,440.6	1,453.1	1,466.2	1,480.6	1,493.7	1,509.6	1,521.4	1,526.4
Percent Change	1.3%	-2.2%	-3.0%	0.9%	0.9%	1.0%	0.9%	1.1%	0.8%	0.3%
Construction & Mining	69.2	60.3	51.8	51.4	52.3	52.8	54.7	57.4	58.4	59.8
Percent Change	1.0%	-12.9%	-14.1%	-0.9%	1.8%	1.1%	3.5%	5.0%	1.8%	2.4%
Information	38.5	36.4	32.5	31.6	31.1	31.7	32.0	32.3	33.2	31.9
Percent Change	1.1%	-5.5%	-10.7%	-2.7%	-1.5%	1.8%	1.1%	0.7%	3.0%	-4.1%
Utilities	6.6	6.8	6.4	6.3	6.0	6.0	6.0	5.7	5.6	5.4
Percent Change	-0.5%	2.2%	-5.9%	-1.6%	-3.8%	-0.4%	0.3%	-4.9%	-2.8%	-2.0%
Transportation	41.8	40.6	38.5	39.3	40.0	41.3	42.3	43.5	45.4	46.8
Percent Change	0.1%	-2.8%	-5.4%	2.2%	1.7%	3.4%	2.3%	2.9%	4.4%	3.0%
Wholesale Trade	69.1	67.3	63.2	63.0	63.0	62.9	62.8	62.6	63.1	63.2
Percent Change	2.1%	-2.6%	-6.2%	-0.3%	0.1%	-0.2%	-0.1%	-0.3%	0.7%	0.1%
Retail Trade	190.9	182.6	177.4	179.6	180.9	182.0	183.9	184.3	183.9	183.4
Percent Change	-0.1%	-4.4%	-2.8%	1.3%	0.7%	0.6%	1.1%	0.2%	-0.2%	-0.3%
Finance & Insurance	123.2	121.0	116.6	116.7	115.3	113.2	110.1	110.0	110.6	110.6
Percent Change	-0.5%	-1.8%	-3.7%	0.1%	-1.2%	-1.9%	-2.7%	-0.1%	0.6%	0.0%
Real Estate	20.9	19.9	19.0	18.8	18.7	18.9	19.0	19.5	20.3	20.3
Percent Change	-1.3%	-4.7%	-4.7%	-0.7%	-0.8%	1.1%	0.8%	2.5%	4.3%	-0.2%
Professional & Business	209.9	199.3	190.2	195.5	201.8	205.4	210.1	214.7	217.1	217.3
Percent Change	1.2%	-5.1%	-4.5%	2.8%	3.2%	1.8%	2.3%	2.2%	1.1%	0.1%
Education & Health	292.2	299.9	304.1	310.8	314.8	318.8	321.9	325.9	327.5	331.0
Percent Change	3.0%	2.6%	1.4%	2.2%	1.3%	1.3%	1.0%	1.2%	0.5%	1.0%
Leisure & Hospitality	137.4	135.2	132.6	135.4	140.1	144.3	148.8	150.5	152.9	156.2
Percent Change	2.5%	-1.6%	-1.9%	2.1%	3.5%	3.0%	3.1%	1.2%	1.6%	2.1%
Other Services	63.8	62.1	60.6	60.6	60.6	62.0	62.2	63.5	64.8	66.2
Percent Change	-0.7%	-2.8%	-2.4%	0.0%	0.0%	2.3%	0.4%	2.1%	2.0%	2.1%
Federal Government	19.6	19.5	19.8	18.3	17.9	17.5	17.3	17.6	17.7	18.0
Percent Change	-0.1%	-0.6%	1.3%	-7.2%	-2.5%	-2.1%	-0.9%	1.5%	0.4%	1.8%
State & Local Gov't.	234.5	234.4	228.1	226.0	223.8	223.8	222.6	222.1	220.7	216.3
Percent Change	1.9%	-0.1%	-2.7%	-0.9%	-1.0%	0.0%	-0.6%	-0.2%	-0.6%	-2.0%

MAJOR CONNECTICUT ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 10
LABOR FORCE & OTHER ECONOMIC INDICATORS
(THOUSANDS -Seasonally Adjusted)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Labor Force	1,870.1	1,887.5	1,895.6	1,915.6	1,902.8	1,870.4	1,874.3	1,894.5	1,892.1	1,902.2
Percent Change	1.5%	0.9%	0.4%	1.1%	-0.7%	-1.7%	0.2%	1.1%	-0.1%	0.5%
Nonfarm Employment	1,706.4	1,664.8	1,606.1	1,618.5	1,631.1	1,643.8	1,654.5	1,668.5	1,680.7	1,682.7
Percent Change	1.0%	-2.4%	-3.5%	0.8%	0.8%	0.8%	0.7%	0.8%	0.7%	0.1%
Residential Employment	1,777.7	1,757.3	1,728.8	1,740.9	1,742.9	1,718.4	1,741.0	1,779.7	1,787.8	1,811.8
Percent Change	0.9%	-1.1%	-1.6%	0.7%	0.1%	-1.4%	1.3%	2.2%	0.5%	1.3%
Unemployed	92.4	130.1	166.9	174.6	159.9	152.0	133.3	114.7	104.2	90.4
Percent Change	16.0%	40.8%	28.2%	4.7%	-8.4%	-5.0%	-12.3%	-13.9%	-9.2%	-13.3%
Unemployment Rate	4.9%	6.9%	8.8%	9.1%	8.4%	8.1%	7.1%	6.1%	5.5%	4.7%
Households	1,359.6	1,365.3	1,369.7	1,366.1	1,367.2	1,358.3	1,361.5	1,359.9	1,359.3	1,369.8
Percent Change	0.6%	0.4%	0.3%	-0.3%	0.1%	-0.7%	0.2%	-0.1%	0.0%	0.8%
Housing Starts	6,719.7	3,763.8	3,854.2	3,540.7	3,643.7	5,338.2	4,697.3	4,728.8	5,772.2	4,837.3
Percent Change	-24.0%	-44.0%	2.4%	-8.1%	2.9%	46.5%	-12.0%	0.7%	22.1%	-16.2%
Single Family	4,922.2	2,479.1	2,848.2	2,469.8	2,387.3	3,036.2	2,786.5	2,411.6	2,775.4	2,764.5
Percent Change	-31.7%	-49.6%	14.9%	-13.3%	-3.3%	27.2%	-8.2%	-13.5%	15.1%	-0.4%
Multi Family	1,797.5	1,284.8	1,006.0	1,070.9	1,256.3	2,302.0	1,910.8	2,317.2	2,996.8	2,072.7
Percent Change	9.8%	-28.5%	-21.7%	6.4%	17.3%	83.2%	-17.0%	21.3%	29.3%	-30.8%
New Car Registrations	183.8	128.9	133.3	148.0	152.1	161.7	174.9	176.1	182.2	179.1
Percent Change	-3.0%	-29.9%	3.4%	11.0%	2.7%	6.4%	8.2%	0.7%	3.5%	-1.7%

Note: Housing starts are expressed in whole numbers, not thousands

MAJOR CONNECTICUT ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 11
ANALYTICS

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Wages/Total Income	47.8%	45.9%	44.1%	44.5%	44.3%	45.1%	45.8%	45.6%	46.1%	45.2%
Other Labor Income /Total Income	10.6%	10.6%	10.4%	10.4%	10.2%	10.2%	10.3%	10.1%	10.1%	10.1%
Social Insurance /Total Income	6.6%	6.6%	6.4%	6.0%	5.7%	6.2%	6.7%	6.7%	6.7%	6.7%
Transfer Payments /Total Income	10.9%	12.0%	12.9%	12.9%	12.7%	12.8%	12.8%	12.9%	13.0%	13.3%
Proprietor's Income /Total Income	11.5%	14.2%	16.7%	14.8%	13.5%	11.7%	11.3%	11.4%	11.6%	10.3%
Property Income /Total Income	25.8%	23.9%	22.3%	23.4%	25.0%	26.5%	26.6%	26.7%	25.8%	27.8%
Average Wages (Thousands)	57.44	58.92	58.78	59.59	61.78	62.22	63.31	64.35	65.84	67.11
Average Mfg. Wages (Thousands)	67.53	70.61	70.27	71.78	77.01	78.19	80.87	82.16	81.10	80.46
Manufacturing Share of Nonfarm Employment	10.9%	10.7%	10.2%	10.1%	10.0%	9.8%	9.6%	9.4%	9.3%	9.3%
Residential Employment /Total Nonfarm Employment	1.042	1.056	1.076	1.076	1.068	1.045	1.052	1.067	1.064	1.077

MAJOR CONNECTICUT REGIONAL ECONOMIC INDICATORS - CALENDAR YEAR BASIS

TABLE 12
PERSONAL INCOME (MILLIONS-Seasonally Adjusted Annual Rate)

BRIDGEPORT-STAMFORD-NORWALK

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Personal Income	82,136.0	89,877.8	91,263.4	96,823.7	98,238.8	97,904.5	93,495.1	98,047.8	99,671.1	100,711.5
Percent Change	9.8%	9.4%	1.5%	6.1%	1.5%	-0.3%	-4.5%	4.9%	1.7%	1.0%
Total Wages	36,063.6	35,749.9	32,768.1	33,941.9	35,522.7	36,225.6	36,289.3	37,393.7	38,547.7	38,716.9
Percent Change	8.3%	-0.9%	-8.3%	3.6%	4.7%	2.0%	0.2%	3.0%	3.1%	0.4%

HARTFORD-WEST HARTFORD-EAST HARTFORD

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Personal Income	58,599.4	61,073.8	59,967.3	60,860.8	63,516.2	65,890.6	66,645.2	68,908.3	71,227.2	71,617.4
Percent Change	6.3%	4.2%	-1.8%	1.5%	4.4%	3.7%	1.1%	3.4%	3.4%	0.5%
Total Wages	35,331.6	35,701.2	34,410.0	34,804.3	36,281.2	37,487.3	38,238.0	39,852.4	41,145.5	41,256.9
Percent Change	6.6%	1.0%	-3.6%	1.1%	4.2%	3.3%	2.0%	4.2%	3.2%	0.3%

NEW HAVEN-MILFORD

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Personal Income	37,913.0	39,321.9	37,868.2	38,416.2	40,065.6	41,457.5	42,005.0	43,071.5	44,550.7	45,073.9
Percent Change	5.0%	3.7%	-3.7%	1.4%	4.3%	3.5%	1.3%	2.5%	3.4%	1.2%
Total Wages	18,478.7	18,919.7	18,230.8	18,372.1	18,855.8	19,466.2	19,822.3	20,389.8	20,989.5	21,310.8
Percent Change	4.8%	2.4%	-3.6%	0.8%	2.6%	3.2%	1.8%	2.9%	2.9%	1.5%

NEW LONDON-NORWICH, CT-RI

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Personal Income	12,085.2	12,720.0	12,528.2	12,576.3	13,076.4	13,476.4	13,476.2	13,790.2	14,272.2	14,538.2
Percent Change	4.3%	5.3%	-1.5%	0.4%	4.0%	3.1%	0.0%	2.3%	3.5%	1.9%
Total Wages	6,605.2	6,855.5	6,710.3	6,659.2	6,745.4	6,799.2	6,762.0	6,894.3	6,984.7	7,163.6
Percent Change	4.9%	3.8%	-2.1%	-0.8%	1.3%	0.8%	-0.5%	2.0%	1.3%	2.6%